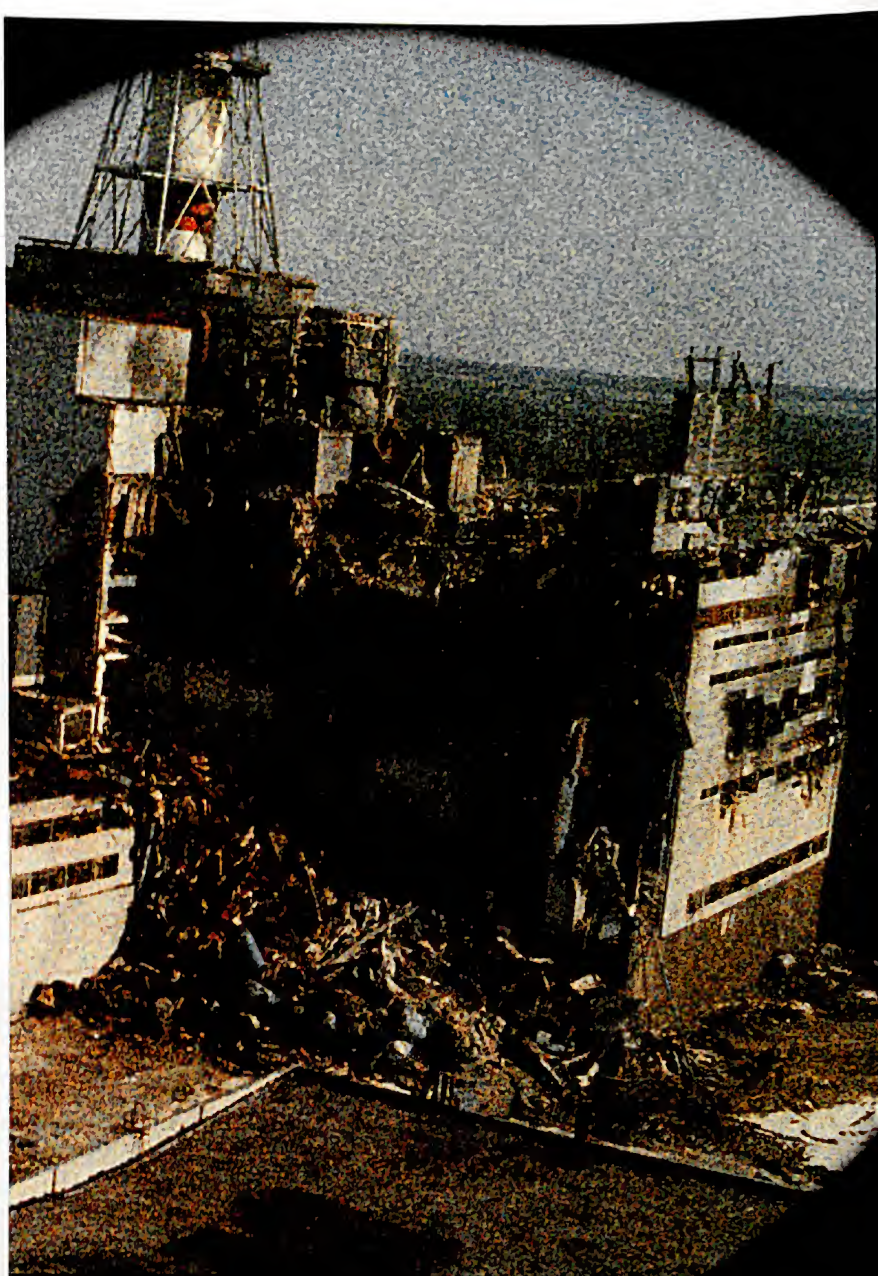


To my parents Nadejda and Fedor

"The photographer's purpose is not to imagine  
but to remember..."

Roland Barthes



Aerial view of the Chernobyl nuclear power plant (April 26, 1986). This is the only photo in the world taken the same day as the accident. The grainy look is due to the extremely high level of radiation. All the other prints taken by Igor Kostin were completely black.

**APRIL 26, 1986**  
**SOMETHING HAPPENED**  
**AT CHERNOBYL**



ON APRIL 26, 1986, the sound of the phone ringing woke me up. I answered automatically, without turning on the light. My eyes were still closed. I recognized the voice of one of my friends, a helicopter pilot: "Igor, there has been a fire at the nuclear plant in Chernobyl. We are going there by helicopter. Do you want to join us?" As a photographer/reporter for the press agency Novosti, these midnight calls did not surprise me. I accepted in a groggy voice. By the time I hung up the phone, I had already put on my pants. Without taking the time to shower or to grab a coffee, I left my apartment and my neighborhood of concrete barriers (which every Kiev neighborhood is filled with). The sun was rising and the firemen would have certainly put everything out by the time we arrived, but it did not matter. I liked to take aerial photographs. We meet at the heliport. Forty-five minute flight, one-hundred and fifty kilometers between Kiev and Chernobyl, over a flat plain frequently dotted with factories. I took advantage of the trip to check my equipment, clean my two cameras, and load my film. I have had dozens of similar mornings.

AROUND NOON, WE SAW the massive silhouette of the plant. It resembled a sleeping factory, set apart from the others, a vast group, a little bit anarchistic, close to the river. Nothing revealed that there was an accident, with the exception of white smoke, almost translucent, rising vertically from one of the buildings and mixing with the clouds. I turned my face to the window to try to see and understand more. I had my camera in hand, ready to go. In the deafening noise dominated. While we approached the plant, a lot of agitation on the ground. Many military vehicles were coming and going. I had already witnessed this kind of scene in Afghanistan, but I did not expect to relive it close to the Ukraine, while photographing a fire. The helicopter continued on its way. Suddenly, there was no movement, no life underneath us—as if we were weightless. In front of us, a large hole, like an open grave. The white vapor column seemed to bolt towards the sky. The plant was composed of four distinct blocks, one for each reactor. The roof of the fourth reactor, a concrete slab of 3,000 tons, had been blown away by the explosion and turned over like a pancake. At the bottom of the ruins, we could barely distinguish the red gleam of the heart of the reactor in a state of fusion. Beads of hot sweat rolled

down my forearm. The temperature was very high, although we did not see any flames. I opened the window, mechanically, as I always do, in order to avoid reflections. I got my camera ready and took a photograph. A big puff of hot air filled the cabin of the helicopter. At once, I wanted to scrape the bottom of my throat. It was a new and strange feeling. I swallowed my saliva with difficulty. Probably the toxic smoke of the fire. I stopped myself from coughing and pointed my lens towards the ground. I made my first shots, about twenty of them. Suddenly, my camera locked. I forced the release button, but nothing. The mechanism had the flu. I was furious. I jammed it fiercely for a few seconds, in vain. The pilot flew one more time over the plant. Unable to take more photos, we flew back without even touching down. All that trouble for only twenty photographs! In Kiev, while developing it, the film was covered with an opaque surface. Almost all the photographs are entirely black, as if the camera had been opened in full light and the film exposed. I did not understand it then, but it was due to the radioactivity. Marie Curie had been confronted by the same experience when she isolated radium. The radiation makes an impression on the film or the photographic plates. Only the first photographs seemed less damaged. Undoubtedly they had been protected by the roll casing. Struggling with the film, I ended up obtaining an acceptable photograph that I sent to Moscow, to the Novosti agency main office. It was not published. But by then I already knew that I was going to return to Chernobyl to take photographs.

DURING THAT TIME, AROUND THE WORLD, the news story was spreading and growing. It was said that there were perhaps tens, hundreds, even thousands of people dead in Chernobyl. The night of the accident, an American satellite had taken a photograph of the explosion. Embassies and editorial bureaus all around the world were buzzing like hives, without knowing what was really happening. Gorbachev understood very quickly that if he wanted to control the rumors, it would be impossible for him to hide the accident any longer. He decided to give five accreditations to various Soviet media: the press agency Novosti (APN), the TASS agency, *Pravda*, the national television, and the correspondent of the TASS agency in Ukraine. I represented Novosti. But the agency was careful: it did not send me a car. "You do understand: a journalist is replaceable, but a car..." It was only the

third day when *Pravda* finally revealed that something happened in Chernobyl. The government's official newspaper did not publish photographs. "An accident occurred at the nuclear plant in Chernobyl. One of the reactors had been damaged. Measures have been taken. A governmental commission is inquiring..." Like others, I started listening clandestinely to the radio station, "Voice of America," where I learned that it had been a "major nuclear accident" that had taken place at Chernobyl, in Ukraine. There were hundreds, even thousands of dead and wounded. I was devastated. Neither the government, nor the scientists had mentioned a major nuclear catastrophe. I wanted to act; I couldn't sit still. The idea of remaining at home or, worse, taking the first plane and fleeing the radiation, did not cross my mind. I had to remain in the Ukraine. The plant was a hundred and fifty kilometers from Kiev, a hundred and fifty kilometers from my building.

The workers there spoke the same language I do. They were my people, my brothers. I was one of them. I stayed.

"Our nuclear plants do not represent any risk. We could have built them at the Red Square. They are safer than our samovars."

Extract from a Soviet newspaper



Flying over the plant (May 1986). The inside of a military reconnaissance helicopter. Despite the security instructions, the co-pilot took off his mask, a "muzzle" leftover from the Second World War.



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**An armada of helicopters.** Military helicopters played a leading role in the battle against "the nuclear beast." During those first days, they filled the wide-open hole of the exploded opened heart of the reactor with lead and sand. Daily they carried out innumerable

reconnaissance flights, spreading decontamination liquid and transporting construction materials for the sarcophagus. Many pilots were seriously irradiated.



"At three hundred meters above the reactor, the radioactivity reached 1,800 roentgens per hour. The pilots were sick during the flight. In order to throw their sandbags in the burning hole of the plant, they stuck their heads out of the cockpit and made a visual guess."

Sergei Vassilievitch Sobolev



A nuclear "scout" (Summer of 1986). The construction of the sarcophagus progressed. Scouts tried to limit the damage: the "dosimeter technicians" flew over the site five times a day to measure the radioactivity levels that changed with the weather and the wind.





Decontaminate as soon as possible. After the explosion, the plant's site was covered with radioactive dust. Several times a day, military helicopters watered it with a coagulant that "nailed down" the radioactive materials. Then teams of "liquidators" rolled the crust

that formed and buried it in trenches. In local slang, the decontaminated liquid devised by the nuclear physics institute in Moscow was known as "watery soup."





A dangerous approach (June 1986). Igor Kostin, whose shadow can be seen on the right, photographs the ruins of the exploded reactor from the roof of the adjacent block, which is covered with radioactive debris.





**The forbidden zone (May 1986).** Liquidators wearing chemical protection suits, useless against radiation, put up a sign on a country road within the forbidden zone. The USSR, not prepared for a potential industrial catastrophe of such scope, did not have that kind of sign

in stock. In five days, 500 identical signs were made to prohibit access to the thirty-kilometer zone surrounding the plant.





**Toward hell (September 1986).** Three liquidators in lead suits climb to the third block's roof, right above the exploded reactor. Everyone is instructed to throw a shovelful of radioactive dust—and then run.

## THE LIQUIDATORS

### AN ARMY OF BIOLOGICAL ROBOTS

THE FOLLOWING WEEK, I visited Chernobyl several times. As I did not have accreditation yet, I negotiated my way in with the militiamen who had been sent to seal off the zone. Some of them remembered a photography book that I dedicated to the militia and they offered me a ride in their car. They also lent me the necessary equipment to protect myself from the radiation. Each day, scientists and representatives of the army and the party visited the site to conduct and supervise the work and actions of the militiamen, soldiers, and workers. The USSR had just refused international assistance, and we managed with what we had: men. It was up to these workers to "liquidate" the accident of the Chernobyl plant. Consequently, they were given the rather administrative and horrible name of "liquidators." In total, between 600,000 and 800,000 people were sent to the plant, including 500,000 soldiers and officer-reservists among them, taken from their homes throughout the USSR and brought to Chernobyl. The others were Ukrainian and Belorussian workers and peasants. The authorities needed their muscle as much as their courage.

GIVEN THE URGENCY OF THE SITUATION, the militiamen handed out masks and protection equipment. The first masks they gave us made us look like pigs. This mask was known among us as the "muzzle" or "snout." It came from equipment available to the surrounding regiments in case of a chemical or bacteriological attack. They were very poorly made. After wearing one for two hours, our mouths would get covered with ulcers because of the heat and the bad air circulation. Two months later, we would receive another model, immediately baptized "petal," because of its white color. These masks allowed you to work all day, but because of the accumulation of the radioactive dust, we had to change them two or three times a day. The monstrous machinery that we continued to soberly identify as the "liquidation of the Chernobyl plant accident," started up. The whole country sent protective clothing, white clothing, to Chernobyl. It became an army of phantoms working around the plant. The white struck me because, in the Soviet Union, there was a very powerful and very strict system of hierarchy. And yet, in Chernobyl, everyone was in white: ministers, generals, soldiers.

Our lives were shattered. Guidelines were uncertain. The true nature of men was revealed at two steps or two seconds before death. I admired the calm and the determination around me, the familiar odors, the measured

way of speaking. It seemed sometimes that nothing was serious, that we were ordinary workers in a factory.

THE RADIOACTIVITY WAS NOT DIFFUSED in a homogeneous way. It was like spots appearing on the surface of the Earth. At certain places, it measured 500 roentgens, and right next to it, only a few. A strong wind or a rain shower and it changed. While walking in a field, I had no way of knowing whether the ground was highly irradiated or very little—unless I was carrying a dosimeter with me. And during the first days, there were no dosimeters, at least not for everyone, although they were the only way of tracking our enemy. Helicopters poured sand, lead, and coagulant products on the plant to prevent the ionizing dust from spreading. Radioactivity was invisible, odorless, colorless. In Afghanistan and in Vietnam, soldiers ran the risk of getting shot, where the pain would be immediate, terrible, where it could kill instantly—but at least they knew. Not at Chernobyl.

By the time we returned to our quarters, we were exhausted. Our only thoughts were to shower and eat. We scrubbed each other repeatedly, washing ourselves until the dosimeters stopped beeping. We knew however, that at the end of the day we ourselves were radioactive, enough to set off our own measuring instruments. Then we sat at the dinner table. We were spoiled because the only way to fight our enemy was to be strong and in good health. We had meat at every meal and we drank wine. We laughed a lot. The cafeterias were loud in Chernobyl; we talked about women, food, and life in general. We ate until we were stuffed, before stumbling to our beds. A last confession, a last joke, and we fell asleep in a few seconds. The next day, we would wake up at four-thirty. The ritual was unchanging: a quick wash, a blood test, and an iodine pill. A pill, taken on an empty stomach, makes you want to vomit, but it was one of the most effective forms of prevention against thyroid cancer. Only after this routine did we have breakfast and put on our protective gear. The soldiers joined their designated missions. Very few thought of deserting. The military promised to double their wages, to triple them, to even multiply them by six if they worked very close to the plant. Their morning conversations were filled with talk of the cars and the houses that they would be able to buy. We made projects and spoke about the future. But in the course of



the day, trouble arose because of the very difficult working conditions. Some helicopter pilots grew faint when flying over the plant while on duty. Nobody knew exactly what became of the liquidators. Many died, many got sick. Officers and soldiers alike, the great as well as the small. The radioactivity did not distinguish between a corporal and a general.

I AM NOT AWARE WHETHER ALL THESE PEOPLE were really volunteers. Without knowing it, they achieved the unimaginable. Small and large populations all over the world owe them their lives. Without their sacrifices, the consequences of the accident at the plant would have been much, much worse. Worse in Ukraine and Belarus, but also worse all over Europe, knowing that half of its population would have been relocated and half of its surface would not have been arable. The liquidators did not choose to fight this war, but placed at the disposal of the authorities the only thing a person could still possess in the USSR: his life.

"Every day, we would receive the newspaper. I would read the headlines: 'Chernobyl, place of accomplishment,' 'The reactor is defeated,' 'Life goes on.' The political assistant of our unit organized meetings and said to us that we must win. But vanquish who? The atom? Physics? The universe?"

Arkadi Filini, liquidator



Putting on a jumpsuit. A group of liquidators help one another to slip into a suit weighing almost thirty-five kilos. Lead aprons covered the chest and the back to protect the spinal cord.





**Painful preparations.** Almost all the liquidators who worked on the roof of the third block were thirty-five to forty-year-old reservists recalled to serve in the armed forces for "maneuvers." General Tarakanov ordered them to remove the lead sheets covering the walls of

the government subcommittee bureaus in order to make them rudimentary protective clothing. These suits were not wearable more than once: they absorbed too much radioactivity.





**A lead cap.** The smart ones made themselves a lead "fig leaf" that they inserted between two layers of underwear. It led to many dirty stories that became part of Chernobyl's tradition.

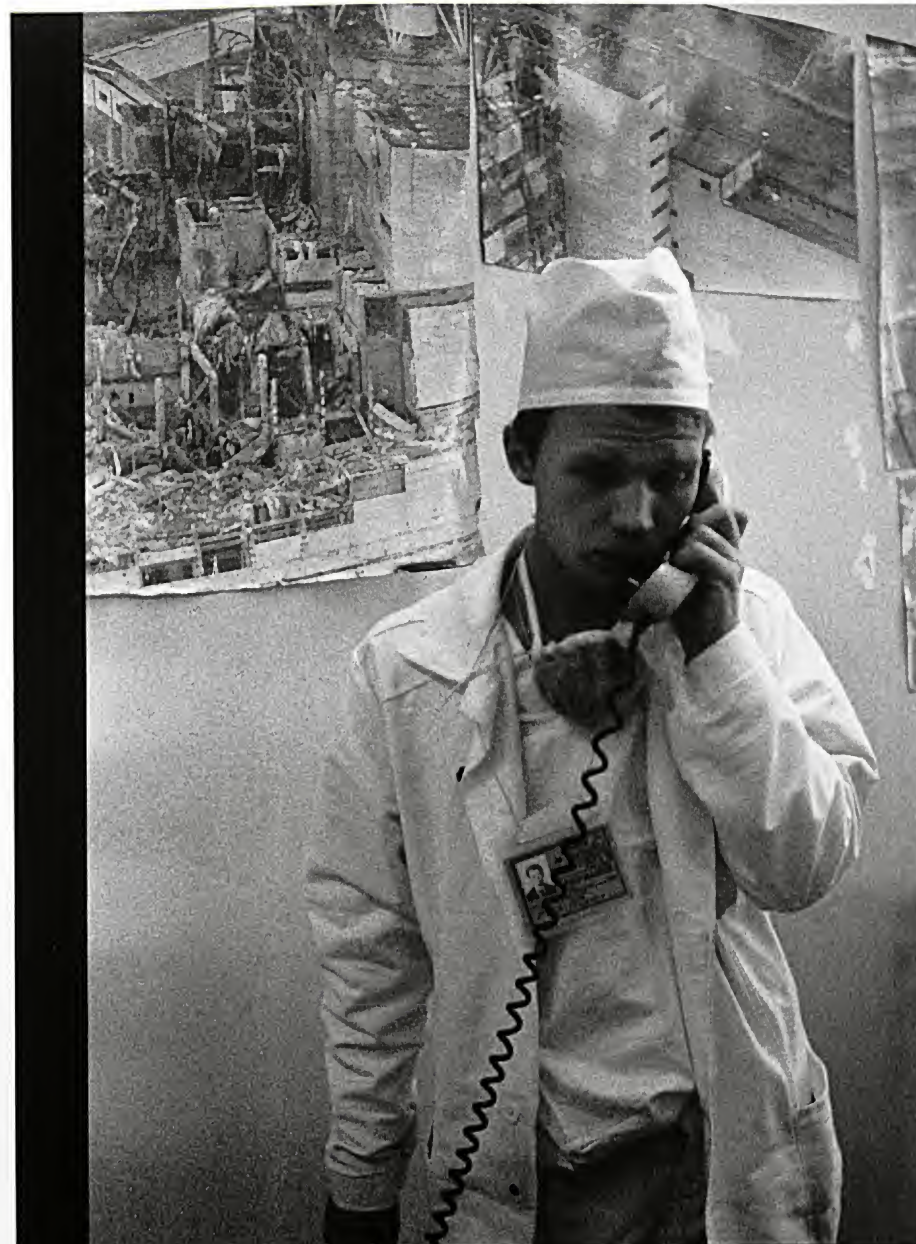


But they forgot neither the lead cap that they wore as headgear, seen here, nor the lead padded sole that they slipped into the boots.





**Igor's friend.** The chief of the dosimeter scouts, Alexander Iourtchenko, in the plant's hallways. He often escorted Igor Kostin to the roof of the third block. Today, this engineer from Kaliningrad suffers from cancer.



**The liquidator headquarters.** Igor Akimov, the coordinator, receives orders over the phone. Behind him, enlarged photos taken by Igor Kostin are used by the staff to prepare the liquidation missions.





**The reactors' maintenance.** After the reactor Number Four explosion, the remaining three, undamaged, were shut down. The first and second blocks were running again in October and November 1986, and the third block, closer to the exploded reactor, in December 1987.

However, even during the reactors' suspension, it was necessary to ensure their maintenance and their monitoring. Here, a team of the plant's personnel goes to work in an highly contaminated environment.





**Celebration of Labor Day in Kiev (May 1st, 1986).** Ordered by the authorities, one million people march through the streets of the Ukrainian capital, although the radioactive pollution had then reached its peak. Cancelling the festival could have created a panic.

## THE EXODUS

### A CONTROLLED EVACUATION



WITHIN SEVEN KILOMETERS OF THE PLANT, the town of Pripiat is located in the heart of the forbidden zone. On April 26, a few residents stood on their balcony with binoculars, watching the fire. They commented on the en-masse arrival of the firemen. Those who had bicycles rode to the safety perimeter surrounding the plant and, once back, the families gathered around them to get the news. At midday, the fishermen returned from the surrounding rivers. They were as dark as if they had spent all summer getting tans. Nobody worried—on the contrary, people made jokes. *War* is scary, not a fire.

The official media did not mention Chernobyl. The ministry of national education even passed a bill reminding students of their mandatory presence in the schools in the surrounding cities and villages. The young ones played in the sandboxes. A marriage was celebrated at the town hall. Nothing distinguished that day from another: same conversations, same indifference, same daily occupations. Only one disturbing detail: the presence from time to time of a militiaman wearing a mask. The next day, some residents turned on the radio to hear that it was necessary to close the windows to prevent the radioactive dust from entering the houses. But that was about all. The second day, the landscape changed radically. The country was in a state of war. It was apparent in the cars queuing on the roads and by men and women leaving: a bag on the shoulder, sometimes holding a child by the hand, in search of a hypothetical shelter.

IN PRIPIAT, we told the skeptical inhabitants that they had two hours to gather their things and leave. During the night, buses arrived in great numbers to evacuate them. Surrounded by the noise of the motors, each filled (without understanding why), a bag of personal effects. They asked several times whether they would be able to return. Like the majority of the Soviet Union's citizens, they had always lived here, had no savings, and it was their whole lives they were leaving behind. We explained to them that there had been an explosion at the plant, that it was dangerous to their health and that they could die. They protested, they resisted, they used great gestures to say that all was well in Pripiat, that nothing and nobody threatened them and that they were in perfect health. They worried about their work and their pay, but nevertheless they got into the buses, in small groups, dragging

their feet. The streets and the buildings were empty. The convoy left the big geometrical blocks of Pripiat, quietly, although everyone was getting ready for May First festival and ceremonies.

IN KIEV, the first secretary of the Ukrainian Communist Party, Vladimir Tcherbitski, proposed to cancel the parade planned for Labor Day. But it was out of the question. It would confirm the rumors and spread panic. No official information had been given yet. On May 1st, people marched through the streets. The heat was unbearable and people were lightly dressed. The atmosphere was relaxed, in spite of the rumors of hundreds dead in Chernobyl. They were celebrating youth and communism in a joyful, street fair hubbub. Kiev's children marched to the glory of the USSR while we listened with a distracted ear to the party delegate's self-involved speeches. In some streets however, the radioactivity was ten times higher than the acceptable regulatory level. But we played music, we took advantage of the sunny day to gather and walk. The town of Chernobyl, twenty kilometers from the plant, had not yet been evacuated. In the following days, the truth began to spread. On May 5th, as we finally evacuated the town of Chernobyl, panicked inhabitants took Kiev's train stations and airport by storm. They sent their children to friends or family who live far from the contaminated zone. Kiev was emptied gradually, like Chernobyl, like Pripiat, but this time, by its inhabitants' initiative.

"Queues of jammed buses left the city. One after the others, like giant beetles, kilometer after kilometer. The traffic was insane. Only a Second World War survivor can imagine a similar scene."

An inhabitant from Pripiat





**All that dust (Beginning of May 1986).** They installed a security zone around the plant where lots of military vehicles and trucks took part in the decontamination park. The traffic problems were handled by agents sent from Kiev. These men spent entire days in the



radioactive dust that rose off the vehicles. They wore only respirators, though an entire protection suit was really necessary.





**The exodus (April 27, 1986).** In the day following the catastrophe at the plant, we proceeded to evacuate Pripiat's inhabitants. It happened smoothly, in a few hours, with 1,200 buses and 200 trucks. The inhabitants were asked to carry with them only the essentials for

two or three days: some food, a change of underwear, and their identity papers. The kids were delighted about this group trip. In fact, it would be a final departure.



"We didn't really understand what we were doing. But we didn't have any choice. The authorities had done everything at the time to hide the truth about the accident. I still remember the demonstrations on the First of May—it was a death march."

Boris Olinyk



Labor Day parade in Kiev (May 1st 1986). The noise of this big party was not loud enough to cover the rumors that started to spread about the disaster.





The tank called Anouchka. The Siberian driver named his tank after his wife and transformed it into a bulldozer. "I love my wife. In her presence, it is easier for me to face death," the driver explained to Igor Kostin.

## TOTAL WAR

### HUNTING DOWN RADIOACTIVITY WHERE IT HIDES



WE WERE AT WAR against the radiation. Traditional warfare implies that you know where deadly bullets are coming from, and that you can hide behind a rock or in a trench. At Chernobyl, there was no trench, no tank to protect you. The enemy was everywhere, nothing stopped it. You were hit by thousands of bullets and you did not know who was firing on you. You did not know if you were injured, or where you had been hit, or at which point. So you continued going forward.

Later, the skin started to peel. The flesh would split open. The bones would rot. And there was no possible treatment. We told the people that everything was contaminated, that radioactivity was everywhere. But they had never seen it, never touched it, and for a reason. Nothing made sense to them, we told them that they must leave, that the streets where they walked every day were contaminated. They did not believe the soldiers. They showed them their animals, the butterflies, the children anyway. Then workers came in to decontaminate the zone. Sometimes, people were still standing on the doorsteps, holding their sparse luggage in disbelief. They watched the firefighters wash their houses with hoses for hours. Afterwards, a crane would lift the house and throw it in a hole dug by bulldozers. We heard the sound of objects and furniture breaking. Everything was buried: trees, houses, vehicles. We even buried the soil and we covered the wells. We didn't do it everywhere, it is true, but in some places, it had to be done more than once. The bulldozers turned over the soil three times or four times within a period of a few weeks.

War was definitely here: tanks were everywhere. At the time we thought they were effective. We thought that they were protecting the soldiers. But it was a mistake: the gamma X-rays penetrated even the armor of a tank. I am not even talking about the military cars with their five millimeters of armor! When I first arrived at the plant, I was on board one of these tanks that soldiers had covered with lead leaves cut with an axe. Everything was covered with lead, except a pothole with a diameter measuring ten centimeters. Some days, it was really warm. So warm that the soldiers were obliged to take off their masks, otherwise they were not able to breathe. Most of the time, they were working in their simple military summer uniform, without any radiation protection.

AT THE BEGINNING, we thought that in some extremely contaminated zones we would use robots. We had even sent a very sophisticated German robot to the plant's roof. But he refused to obey—the radioactivity had disturbed even the machines. Afterward, he rolled over to the edge of the roof and threw himself from the top of the plant. One might have thought he had jumped. This is how we found out that neither robots nor computers could do anything to help. Right after the first evacuations, the countryside was populated with abandoned dogs and cats. People were not allowed to take them because their fur absorbed the radioactive dust. So they wandered into the most contaminated spots and became radioactive. Throughout the regiments, the soldiers were instructed not to hold any cats.

The order was given to form hunting brigades to kill the animals. A few days later, there were hundreds of dogs' and cats' bodies everywhere, in the streets and in the woods of the abandoned towns. The brigades patrolled in columns; the sound of their fire constantly echoed. It was easy to kill the animals; they ran toward the soldiers, happy to hear human voices. You just had to aim right. Later, other brigades were in charge of collecting and burning the bodies. Sometimes an animal ran away, fast. We didn't have time to shoot. We made eye contact with them. It was terrible. Suddenly, we lost our nerve.

At Chernobyl, our first priority was to save people. As for the land and the animals, we contented ourselves with simple, drastic solutions. The gun for the dogs and cats, the shovel and the bulldozer for the land. These were our only weapons to fight radioactivity.

"They have advised us to work in our garden wearing cotton masks and rubber gloves...and a very pretentious scientist said that we should even wash the woodpile...Have you heard such nonsense?"

Zinaida Evdokimovna, an unauthorized resident





An obligatory decontamination (May 1986). The vehicles, circulating around the plant, are not allowed to leave the area without being washed with a decontamination substance. It's the chemical defense teams' responsibility.

"We have bonuses. Thirty rubles per person. A vodka bottle costs three rubles. We would "deactivate" ourselves..."

Viktor Iossifovitch Verjickovski



A "leaded" truck. A supervisor writes in his notebook the number of the trucks which undergo a decontaminating wash. To protect himself from the radiation, the driver covers the top and the front of the truck with lead leaves.





**The trials of Sisyphus.** After the evacuation of Chernobyl, all of the buildings, the streets, and the roads were carefully cleaned with a liquid decontaminant. However, this

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ancient city of 15,000 residents remained off-limits for living. Only one hundred old people who refused to leave, along with the administration of the forbidden zone, still lived there.

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**A region to wash.** In the first months following the disaster, teams of liquidators water the villages surrounding the plant: some had already been evacuated, others would be later. The purpose was to make the radioactive dust stick to the ground.





I don't want to leave. In spite of the radiation levels, many people resisted the evacuation ordered by the Soviet authorities. Seeing the arrival of soldiers ordered to bury their villages, this man flew the Ukrainian Soviet flag and wrote in chalk on the walls of his

house: "Comrade soldiers! Be careful, don't destroy the houses. Someone lives here." And as though that wasn't enough, he started to write the same thing again....





**The burial of a village.** Igor Kostin—who we see in shadow, below right—takes a picture of the destruction of an evacuated village. Following a preconceived technique, the bulldozer

first digs a giant hole in front of the house, then pushes the house in, and re-covers it with soil. This is how entire villages were buried.





**The ultimate shower.** Over the years, the militia continued to destroy and bury the evacuated villages. The maps of radioactive fallout in the Ukraine, in Belarus, and in Russia showed the vast contaminated zones. Here, the last step before the destruction of an

inhabited village that fell into ruin: they wet down the earth to prevent the spread of radioactive dust.





**Depressed.** The soldiers were not prepared for this kind of mission. It took a lot of courage to bury entire villages where their countrymen had lived.





"In the village square, there is nothing left but a field. Our house is buried there along with the school and the village office, my notebook, and two stamp albums."

Vassia Mikoulitch, 15 years old

Here was a village (August 1987). Here was the village of Kopatchi, located seven kilometers from the plant. In the first months after the disaster, liquidators made this the control post where they cleaned all the contaminated vehicles.





When nature becomes dangerous (May 1986). A liquidator planted a panel at the outskirts of a wooded area in the forbidden zone that reads: "Radioactivity. Danger zone. Grazing and gathering berries and mushrooms is forbidden."





Collect a shovelful of highly radioactive graphite—that was the order for the liquidators. The Soviet Army never economized in its use of human fodder.

## "ROOF CATS"

FORTY SECONDS TO LIVE



DURING THE SUMMER, I decided to find a place closer to the plant to stay, so I didn't have to drive sixty kilometers every morning. The soldiers suggested that I sleep in an abandoned kindergarten. It had a pretty name: *Skazka*, "Fairy Tale." The dosimeter technicians responsible for measuring the radioactivity in each part of the plant lived there. They were especially busy going onto the roof of reactor Number Three where the explosion had scattered a large amount of highly radioactive residue. Between ourselves, we called them *Krychnye Koty*, the "roof cats." They set up maps. They progressively mapped the entire plant. So, when the moment came to send the machines or the troops, one knew precisely what dosage of radioactivity they would be exposed to. They worked in intervals of forty seconds, because they went where no one else did, where the radiation was the strongest.

THE ROOF CATS were shrouded in a certain mystery. There were eighteen of them and they worked at night, like tomcats chasing their mates. Bunking in the same place as they did, I befriended some of them. I told them about my difficulty getting closer access to reactor Number Four. I showed them my accreditation: my pictures had been published throughout the whole world! They listened to me, smiling. They thought I was a little crazy, but they agreed that I could accompany them. The following night, before climbing up to the roof of the plant, I took a photo of the group. I should say a class photo, or portrait of the factory workers. Above them you could still see the slogan that pre-dates the explosion: "Chernobyl's 'Lenin' nuclear plant works for communism!"

When we noticed the slogan, it made us smile. In that photo, one sees Sacha Iourtchenko. On the roof, he took me under his wing. He knew all the corners. It was nothing but ruins, but he knew how to slip between the rocks, through the tunnels and the holes in the structure. He walked slowly, dosimeter in hand, trying to decide precisely the strongest points of contamination. As soon as the roof cats found a spot of radioactivity, they followed its pattern and marked it on the map. At first, they thought mostly about sending automatic or remote-controlled machines to remove the blocks of graphite off the roof. But it soon appeared that the radioactivity destroyed the electric circuits of the machines. Once again, they used what was left: men. They called them "biologic robots," or even the "green robots," because of their uniform.

ON THE ROOF, they only had to stay forty seconds. In that time they were to throw one or two shovels full of radioactive waste into the wide open hole of block Number Four. Sometimes the level of radioactivity reached 10,000 roentgens. And no one could simply imagine that it was possible to work at 10,000 roentgens. The siren beeped. Eight soldiers came out running and headed toward the roof. Forty seconds later, the siren beeped again: they returned, still running.

Sacha Iourtchenko went before me toward the roof. He pointed his dosimeter. He was looking for a spot where I could take photos without running too much of a risk. Then he returned, running, and hid himself behind a thick wall. It was my turn. I went up there, hit by a strange, mystical feeling, I had the feeling of being on a different planet. Everything was covered by "fuel," a mélange of radioactive combustibles. My hands were shaking. I no longer knew where I was. But I took pictures anyway. Scarcely a minute later, I felt a tap on my shoulder and a voice said to me, "Hey man hurry up! I'm inhaling lots of radiation because of you. Get back here fast!" Sacha pushed me inside the shelter.

The maximum limit of radioactive absorption by the human body is twenty-five roentgens. It is a military rule. During the first days, they handed out notebooks to write down our daily radiation count. From the men of the roof cats brigade, I understood that you had to lie. If you had twenty-five roentgens, you would be replaced. To finish the clean-up of the catastrophe, the "cats" noted in their notebooks a figure ten times lower than their actual radiation level. And in that moment, I said nothing, so as not to betray them, because they wanted to stay to finish their work. One day, General Tarakanov, who directed the brigade, came to see me. He said, "Igor, to avoid uselessly burning my soldiers, I need some big panoramic photos of the roof. We will mark on it the location of the pieces of graphite to be removed."

When the biological robots returned to the roof at the end of the day, they gave them an official diploma—a piece of paper, not even a real medal. And then 100 rubles and a certificate of demobilization. They took the train and returned home. Nearly 5000 men, one after another, went on the roof during the month of September. I received five official



diplomas myself. They were simple little red cards that smelled of porridge, sweat, and lead. I am very proud of them.

THAT IS WHAT I was the proudest of in my life. I saw men move radioactive blocks of graphite with bare hands. It was the first time in history. I believed such a thing was not possible in this country, a country where a man's life isn't worth much. As proof, the regime forgot about them. No one called Vania, Petia, or Volodia, to find out how they were, to ask if they needed something. Worse still, they took away their pensions and their perks. You might have thought that the biological robots, like cats, had seven lives. After they descended from the roof, they discretely evaporated, along with their warmth and their smiles. When heros don't have names, they are treated as though they don't exist. And they disappear.



The lunar robot (July 1986). Having climbed on the roof of the third block without authorization, Igor Kostin finds himself face-to-face with this little Soviet robot created for moon exploration. The robot, his sensors alert, spots Igor. Best to get down quickly.





**How not to die.** This is what General Tarakanov is explaining to a team of liquidators before they climb on the roof of the third block, one of the most radioactive places on the site. In the twelve days between September 17th and 29th, the liquidators lifted 170 tons of nuclear

waste, graphite, and other debris from the exploded reactor from the roof of the plant. Tarakanov himself was gravely irradiated and had to undergo two years of treatment before his life was saved.





"The sun was so radioactive that our feet burned after each mission. We had to soak them in cold water to relieve them."

Alexandre Koudriaguine, liquidator

**The biologic robots.** To clean the roof, they first tried to use West German robots, then Japanese and Soviet, but their electronic systems came apart rapidly due to the extremely

high levels of radiation. Then the decision was taken to use men. Realizing their sacrifice, the liquidators called themselves "Robot Petia," "Robot Vassia," etc.





**A race against the clock.** A siren screamed at the start and end of each intervention, which lasted less than a minute. This was long enough to receive a dose of radiation equivalent, if not greater than, the maximum allowed for the entirety of a human life.

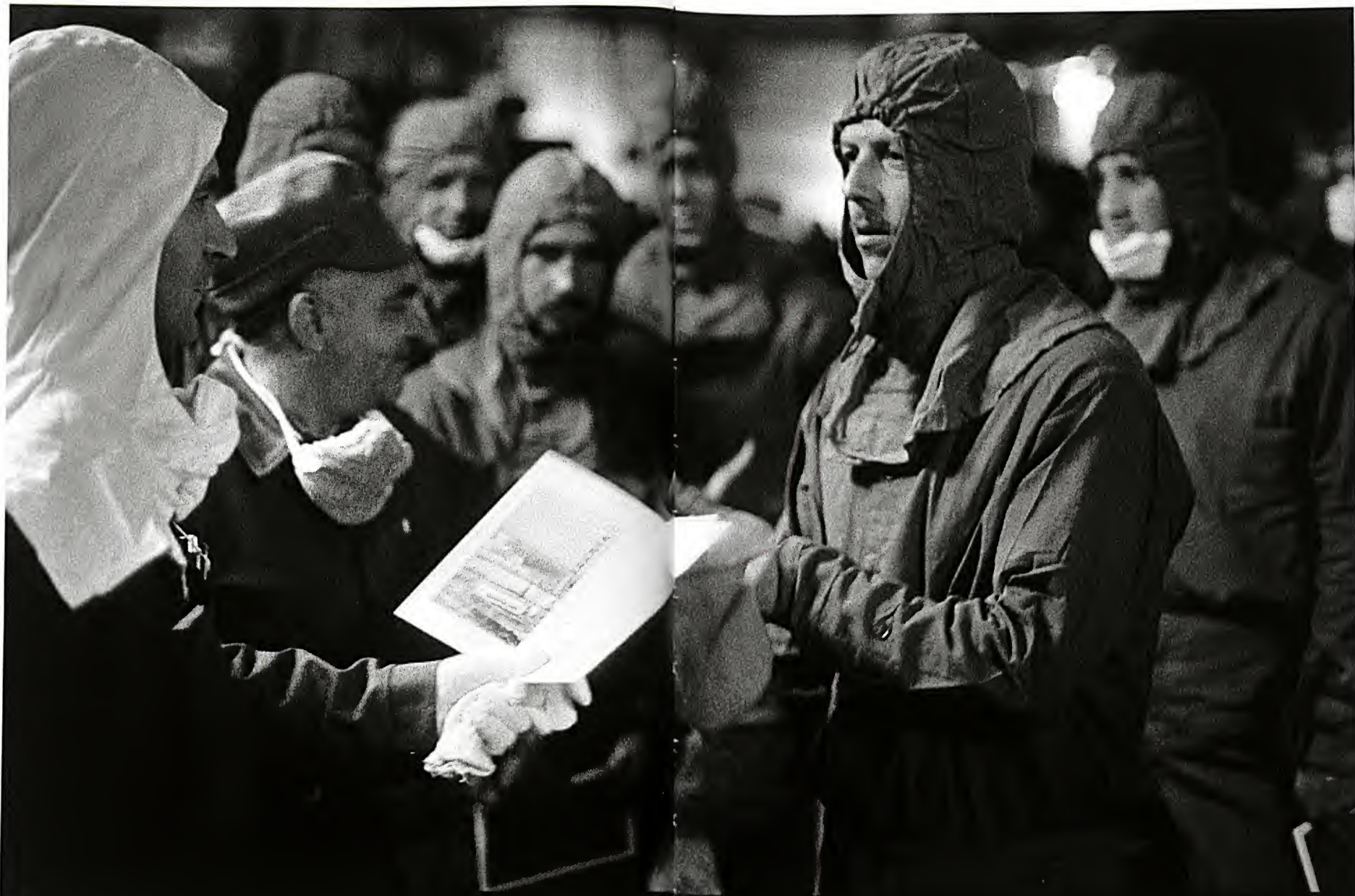
The cameras of Igor Kostin were not spared. The radiation attacked the film, forming white stripes along the length of the images. These shots cost him two Nikons.





**An antinuclear weapon: the shovel.** Finally, it came down to this: a shovel to sweep up the nuclear debris, and wheelbarrows to carry it and toss it below. Today the debris still continues to radiate under the sarcophagus.





The hour of congratulations (October 1986). General Tarakanov awards letters of recognition to a group of dosimeter experts known as the "Roof Cats." These high-wire specialists were responsible for exploring, every night, the level of radioactivity on

the roof of the third block and in other dangerous places where the liquidators worked. In the first row, facing the camera, Alexander Iourtchenko, group leader.





Tomorrow they will be dead (October 1, 1986). The MI-8 crew asked Igor Kostin to photograph them. The next day, caught on camera, their helicopter crashed after hitting the arm of a crane. The TV station censored the story.

# THE SARCOPHAGUS

## A LEAD COFFIN FOR THE REACTOR



DURING THE FIRST WEEKS, men began building a concrete shell around the reactor. For once, they were not soldiers. Behind their masks and lead plates, they were engineers assigned from all regions of the USSR—tokens of a government willing to sacrifice its best personnel to end radioactive contamination. Cranes and concrete blocked the landscape over reactor Number Four. Familiar sounds simulated those of an ordinary job site. But these workers had no identity, no registration, only the recordkeeping of their radioactivity level and some occasional medical exams. Statistics ignored them or treated them like lab animals, biological robots, like those who were promised money, a dacha, a car, life pensions for their families if they agreed to dive under the reactor and release the plant reserve water tank. Volunteers came forth. They released the tank and were paid seven thousand rubles. Promises of a car, a dacha, and everything else were forgotten. Money was not their motive.

SIMULTANEOUSLY, miners were sent in to cool off the reactor which continued to heat up. They were afraid that the high temperatures would fracture the plant's concrete floor. If that happened, the reactor would collapse into the ground, provoking a thermonuclear explosion, a chain reaction twenty-three times greater than Hiroshima. Miners were hired from Donietsk, a coal mining and mountainous area east of Ukraine. They had been ordered to build a tunnel to feed liquid nitrogen to possibly stabilize the soil and concrete to form a cushion under the plant. I was asked to photograph these men. I refused. I don't know why. At the time, I found the subject uninteresting. I feel ashamed of this today. They dug the soil of Chernobyl, emerging on the surface with carts of dirt. They went deeper and deeper. They are Ukrainians, *moujiks*, simple people who don't worry about their lives. Because the heat was so unbearable, they removed their masks and suits. Steam blinded them, and the lead slowed them down. They installed rails and brought the small carts. Like nineteenth-century miners, they emerged from the tunnel half-naked, pushing the bins with bare hands. They could only think about the moment when they could tell Gorbachev: "Our work is done."

AT THE END OF THE SUMMER, the tunnel was completed. In the fall, the construction of the sarcophagus was over. I remember General Tarakanov came to see me then. We had agreed to fly the Union flag on the roof. (From the days following April 26th this had been a Party obsession.) I got into the helicopter with a crew and the precious red flag. But at the moment we approached the chimney, some powerful drafts swept the aircraft off course. We were afraid we might hit the reactor, so the captain decided to turn back. While we were landing, he said to me, "Man, you know what, Igor? After four years of Afghanistan, we don't even have a single picture of us there. Could you take a photo of us now? For our families?" The next day, the team crashed into the arm of a crane; they all died. The following day, we managed to plant the flag. For the soldiers, it was like running up a flag over the Reichstag in Berlin.

The radioactivity was under control, enclosed. A liquidation executive met with us and began by saying: "All my life I will genuflect before Robot Pelia, Robot Vassia, Robot Volodia...."

Whispers ran through the crowd. We now knew who we were, a moment of truth, now that we might finally be safe. We were told that there was no more radioactive dust coming from Chernobyl. The temperature was expected to return to normal. Around the world, people obviously had doubts. That's why, two months later, I decided to return in a helicopter to photograph the sarcophagus. I took a beautiful photo of winter. The sarcophagus was covered in fifty centimeters of snow. The snow wasn't melting. That was the proof we needed.

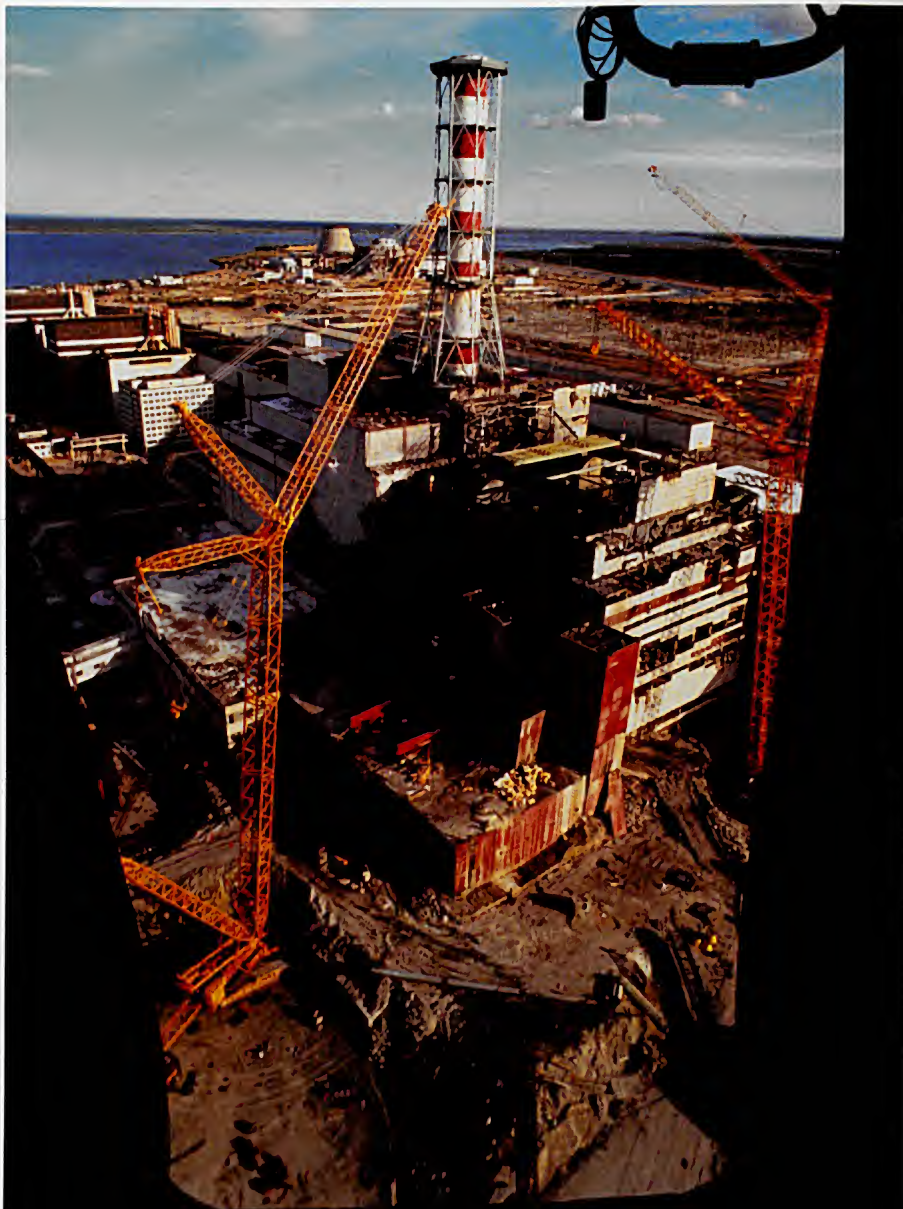




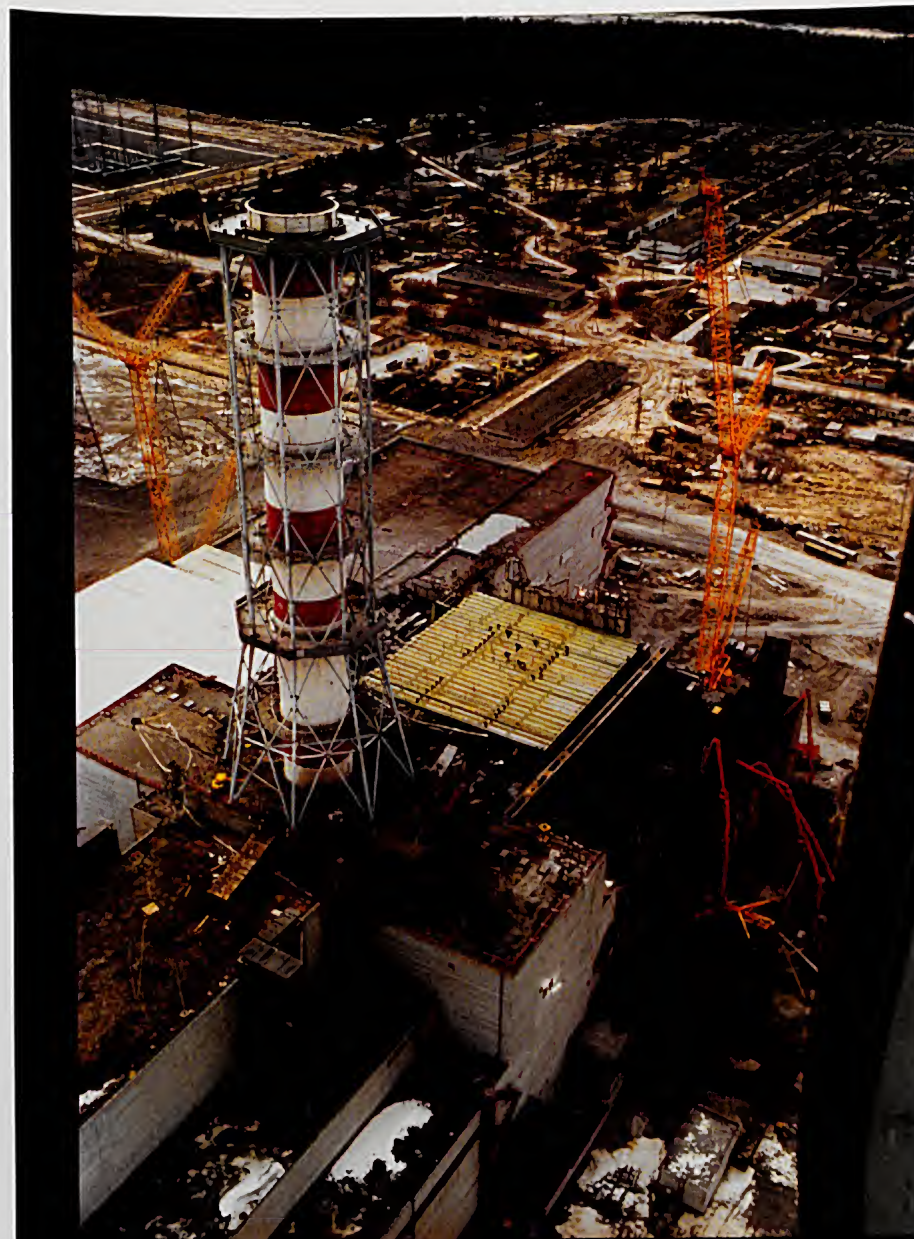
We clean up the terrain (June-July 1986). Phase one of the construction of the sarcophagus. Here, a powerful army bulldozer pushes radioactive debris towards the site of the future sarcophagus.







The construction of the sarcophagus (October 1986). The roof rests on twenty-seven 35 meter-long columns of steel covered with concrete. Here, a remote-controlled crane lays a new beam.



Final phase. Beams in position. They can be put on the roof.





An architectural achievement? The Soviet press often bragged about this "den for a nuclear beast." The construction was in fact monumental, with 300,000 square meters of concrete and 6,000 tons of metal construction materials.







**Like the Reichstag.** Once the work is done the liquidators are ready to climb the seventy-eight meter high chimney in order to plant the Soviet flag. One of them, Sacha Iourtchenko, salutes Igor Kostin, who is aboard the helicopter.



**"Soviet people are stronger than the atom."** The order was strict: three minutes maximum to climb up the chimney, three to plant the flag, and three more to retrieve it. No one bothered to decontaminate the chimney.





The sarcophagus under the snow (December 1986). According to the Western European media, the reactor continued to "boil." The Novosti press agency asks Igor Kostin to



take a few shots of the sarcophagus under the snow, as tangible proof of the reliability of its concrete carapace.





The defendants' box (July 1987). A closed trial at Chernobyl where Soviet technology was cleared of any wrongdoing. Three of the plant's top executives were each condemned to ten years in jail. (Left) Viktor Brioukhanov, the plant's director.

## THE POTEKIN TRIAL BETWEEN SCRUPLES AND LIES



I DON'T BELIEVE that such a disaster could have happened anywhere else but in the USSR. Beginning in the early eighties, small incidents were happening at Chernobyl without anyone really mentioning them. The authorities minimized everything, talked about repairs and normal maintenance cleanups without informing anybody—and certainly not the general population. In 1982, during a fuel recharging operation, the center of the first reactor block was damaged, leaking massive doses of radioactive elements. But they were satisfied with a minimal clean up, using the upcoming visit of the Secretary General of the Ukrainian Communist Party as a pretext. Finally, in April 1986, Sweden, concerned about the spectacular levels of radioactivity on its own territory, forced the USSR to publicly acknowledge that something had happened at Chernobyl. That's how people found out. However, no one really discussed what really happened at the plant at the time of the explosion. They spoke of security testing that had gone badly wrong, that much was true, but without ever making a connection to the actual cause of the accident or seriously evaluating the number of victims. The Army and the government kept their secret. Valery Legassov, academician and renowned scientist, continued to affirm in *Pravda* that the future of the Union was nuclear energy and that Chernobyl was only a minor (if regrettable) incident.

At the time, Legassov was the Deputy Director of the Kourtchatov Nuclear Physics Institute, which also studied the use of robots during the liquidation process. He visited Chernobyl several times. He contributed a lot and I greatly respected him. At the beginning of 1987, I did a portrait of him. In an authoritative voice, with a commanding presence, he told me he knew exactly how the photo should be shot. In the small, empty, and over-exposed studio we argued as though the only thing that mattered was this photograph. He finally let me do it my way, because he knows how to listen, even if he doesn't appear to. A month later, in March 1987, Legassov went back home, took a gun, and calmly checked to ensure it was in good working order. (After all, he was a scientist, a conscientious man.) He loaded the gun and shot himself in the head. Simultaneously, demonstrations began in the Ukraine and in Russia.

ONE MORNING, eight people were arrested in their homes, among them Brioukhanov, the plant director, and Fomine, the chief engineer. They were thrown into jail in a secret location. Like common criminals, their shoelaces and belts were confiscated. Nevertheless, Fomine attempted suicide by breaking his glasses and slashing his wrist with the shards. They began by canceling their membership to the Communist party (PCUS) before moving on to organize their closed trial, lasting a few weeks in Chernobyl and ending in July 1987. The prosecution built its case on the fatal unpreparedness of security testing and the absence of responsible parties during the testing. Brioukhanov was reminded that, at the time of activation of reactor Number Four, he had neglected certain indispensable checks. In his defense, he was a bureaucrat whose only concern was to be well-regarded by the party. His ambition was totally in line with other high level functionaries of his generation. He should have consulted with experts. But who did that? The authorities had even awarded him the Order of the Friendship of the People for the launch of this same reactor Number Four. At the time of the disaster, he was about to be inducted into the Order of Socialist Work.

During the entire trial, the defendants sat beside each other—nervous, withdrawn, and awkward. They explained that they could not be held responsible, they had excuses—without ever mentioning the regime, the corruption, or the bureaucracy (they would not dare). The regime needed designated victims and they didn't resist the role. The verdicts ranged from three to ten years in jail. Brioukhanov and Fomine each received ten years behind bars. They were sent to Siberia. This was the whole point of the trial: to keep it quiet, to leave the reactor under its sarcophagus, to put boards and wires around it, and avoid acknowledging the special status of the liquidators. Men became robots once again. In Chernobyl, we saw communism begin to die from its paradoxes.

"They needed scapegoats. Everything had been pre-decided. They ordered the judge to condemn us, and he did it. The real causes of the accident didn't matter."

Viktor Brioukhanov, plant director

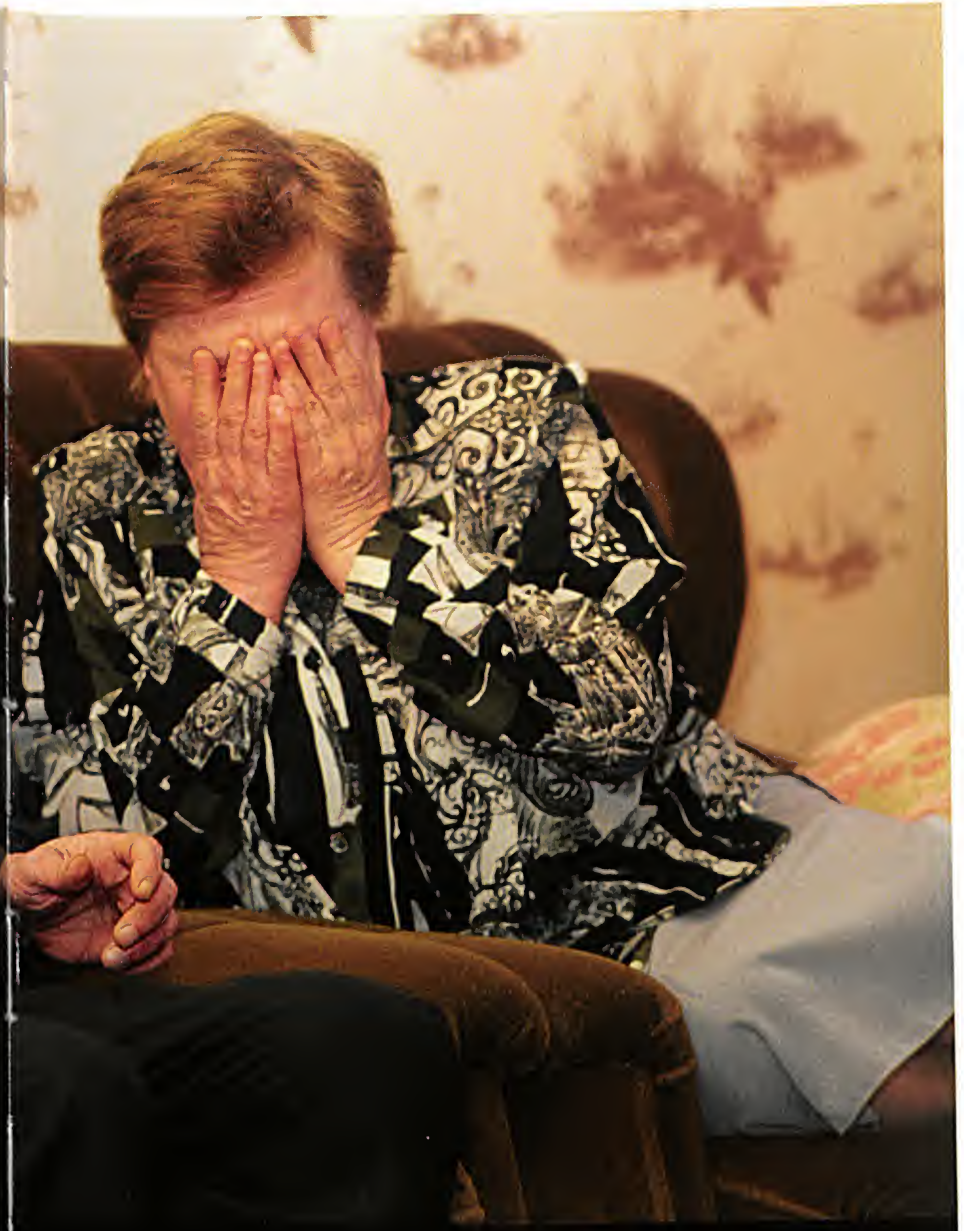




**Closing arguments.** The press, pre-selected, was only admitted into the courtroom for opening and closing arguments. Here, a few Soviet TV cameras impatiently await the verdict about to be announced.

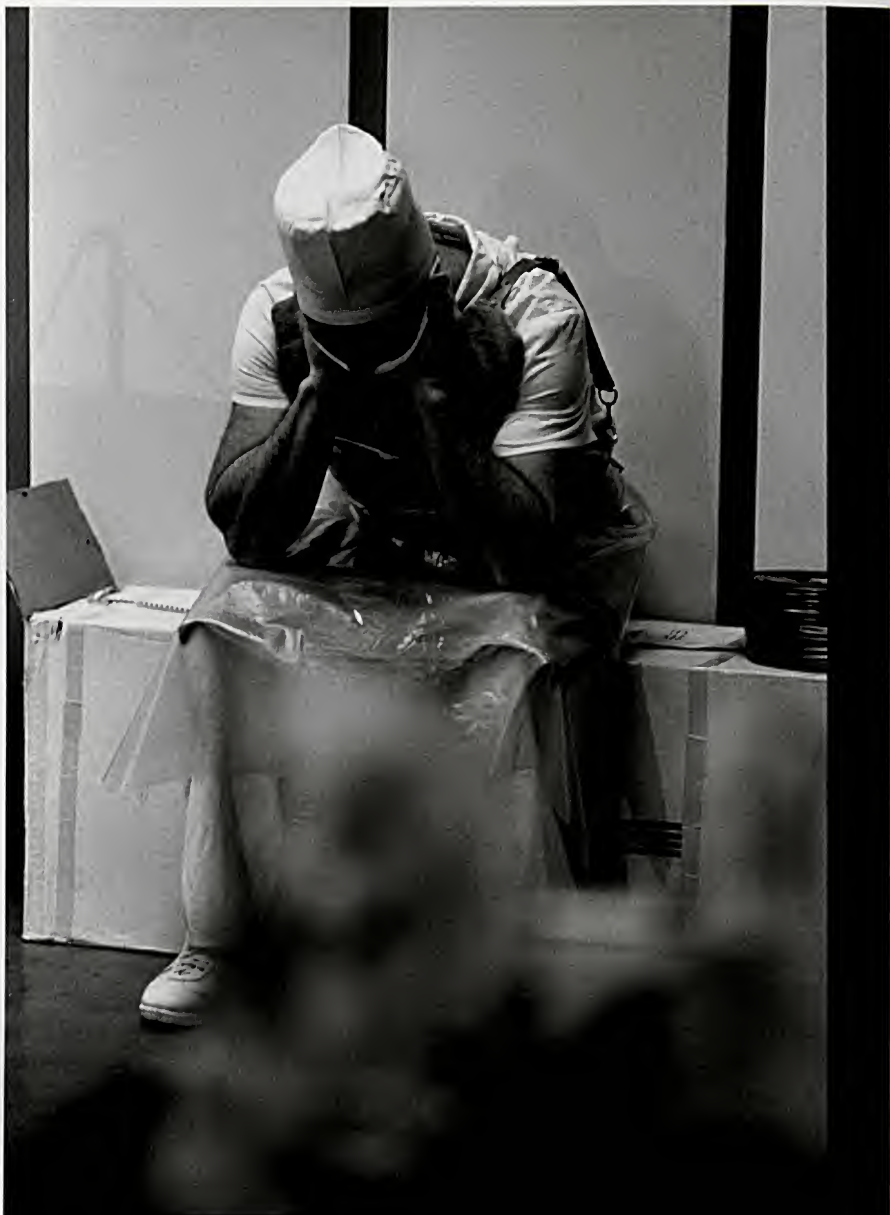






**Scapegoat.** Viktor Brioukhanov, director of the plant at the time of the explosion, spent ten years in prison. In 1997, in Kiev, he and his wife still wonder who was responsible.





**Outside the block.** Apart from cancer, many liquidators suffer from cardiac problems. Here, a surgeon rests for a few minutes after an open-heart surgery. Will the patient survive?

## THE EVILS OF RADIATION

### A VISIT TO CLINIC NUMBER 6



AT THE END OF 1986, on a street in Kiev, I realized that I could not walk straight. I had the feeling of floating. Around me, traffic and pedestrians passed too quickly. The street sounds were a long groan punctuated by the beating of my heart. Instead of the usual smells of cooked food, cheap perfume, and gas, I had the taste of vomit in my mouth. I struggled against the nausea. I had trouble getting back home. For weeks already, I had been seeing doctors because of migraines and digestive problems. The next day, I thought I ought to go to one of the regular medical check-ups that all those who went to Chernobyl had to submit to. A few days later, I learned that I must urgently go to Moscow where the most serious patients are treated to the famous Clinic Number 6, a military hospital. With me were two liquidators and a documentary-film producer, Volodia Chevtchenko. Our appointment was scheduled for January 1st in Moscow. We were very sick. But we postponed our trip until January 3rd in order to spend the holidays with our families. One of us didn't show on January 3rd: Volodia Chevtchenko was already dead.

IN MOSCOW, they gave us blood transfusions, which made us feel a little better. The most bothersome symptoms disappeared. Even though it was prohibited, I took advantage of this opportunity to take photos of the patients. I returned many times to Clinic Number 6 to photograph. I met Alexander, a six-foot-tall giant, who survived, I don't know how. A plumber by trade, he was a security guard when the explosion occurred. Radioactive water had inundated the core, forming small streams on the floor that infiltrated everywhere. Alexander got some of it on his arm. He cleaned it quickly with a towel, but he did not know he should have washed his arm *several* times, scrubbing the skin with soap. When we first met, he showed me his arm. He was a tall guy, handsome and strong, but his arm was nothing but a bone covered by a thick scar. Yet he smiled, a smile with no trace of pain or regret. His voice was joyous when he talked about the miracle of his survival.

IN THE DAYS FOLLOWING THE EXPLOSION, Robert Gale, an American physician specializing in bone marrow transplants, came to Moscow. The initial operations he performed on the first Chernobyl patients all failed. When Sasha arrived at Clinic Number 6, they assumed he was done for. He had been exposed to such high levels of radiation that he should have died instantly. After being examined by Gale, he underwent a bone

marrow transplant. Then they placed him in a sterile room, and waited. A few days later, though exhausted by the procedure, he said that he felt better. He was in stable condition. At that moment I told him I had taken a photograph of Robert Gale. He begged me to give it to him: Gale had become his saint, his icon. Twice, when he returned to Moscow, I visited him. His good humor really helped me. When I asked him how he felt, he always answered that everything would be fine. He wanted to go home, to the suburbs of Kiev, but the doctors kept him in Moscow, like all the severely irradiated patients. They wanted to follow the development of his disease, the behavior of his organs, to try to understand how he could have survived such a dose of radioactivity. Finally they provided him with an apartment in the city but he had to undergo regular checkups.

IN CLINIC NUMBER 6 I was fascinated by those who, like Sasha, had received a bone marrow transplant. The shock of the operation was terrible. They were so fragile they had to be protected from the least germs. For many weeks the world around them became white and sterile, without noise, except for the sounds of monitors and air filters, with almost no smells, and, above all, depopulated. Their only contact with the outside was tubes and drips. To take pictures of the patients they sterilized my cameras with a wipe drenched with alcohol, and I took off all my clothes and quickly put on a sterilized gown.

A doctor accompanied me to explain what I was looking at. We spoken in low voices, muffled by the mask. When I came out of a sterilized room, the world seemed to babble, filled with sound, odors, and movement. One day I ran into the night watchman at Chernobyl. The 26th of April, at the moment of the explosion, he went out, alerted by the noise. He looked over block Number 4 fascinated by the fire and the flying dust. Two years later, when I took his photo, his hands and head were covered with ulcers. The rest of his body, protected by his clothing, was untouched.

HOWEVER, THE MAJORITY OF VICTIMS I didn't see at Clinic Number 6 or at any other hospital in Kiev or Moscow. I sometimes ran into them in the streets and on the road to Ukraine and Belarus. In the years that followed the catastrophe the numbers of certain pathologies exploded.

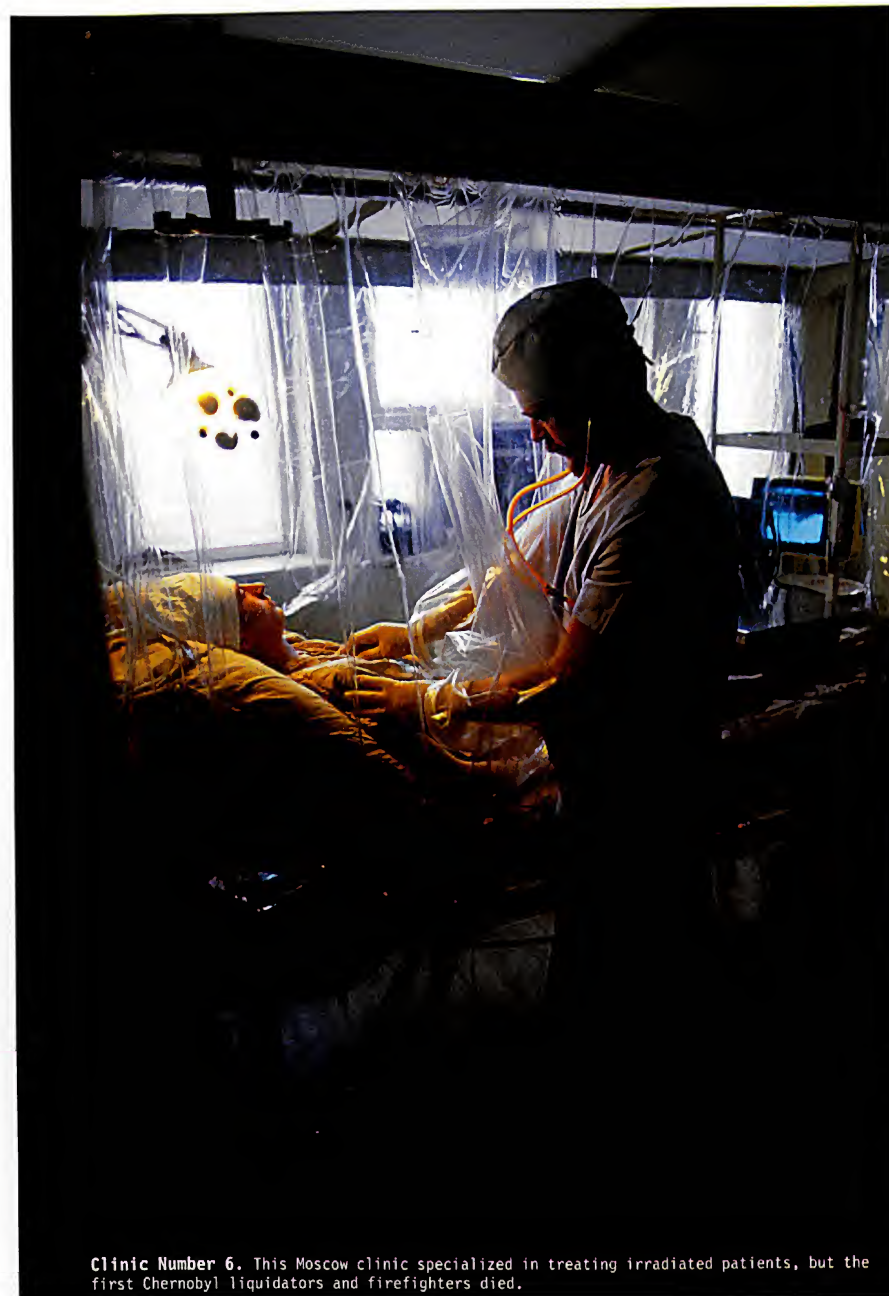


It wasn't rare in a café in Kiev to see a little scar on the neck of a young woman who must have been a child at the time. It was the sign of the removal of the thyroid gland, the only method at the time to cure thyroid cancer. In ten years in Belarus that number multiplied by ten. The number of eye diseases, of respiratory or cardiac cases had more than doubled in these regions, without mentioning the depression, the nervous disorders, and the paranoia. From the first months specialists also studied the possible links between radioactivity and genetic mutations. In 1998, for example, a mare gave birth to a colt with eight feet in the region of Jitomir.

But it was very hard to get information on this subject because during the first years, the authorities tried to suppress the situation and to hide the evidence. What we know for sure is that the birth defects were much greater: defects of the limbs, or at times of the spinal column. The mutations in DNA were more frequent in children of the Ukraine and Belarus than everywhere else. The catastrophe was written in our bodies, in our genes. It's passed on. It's our inheritance.

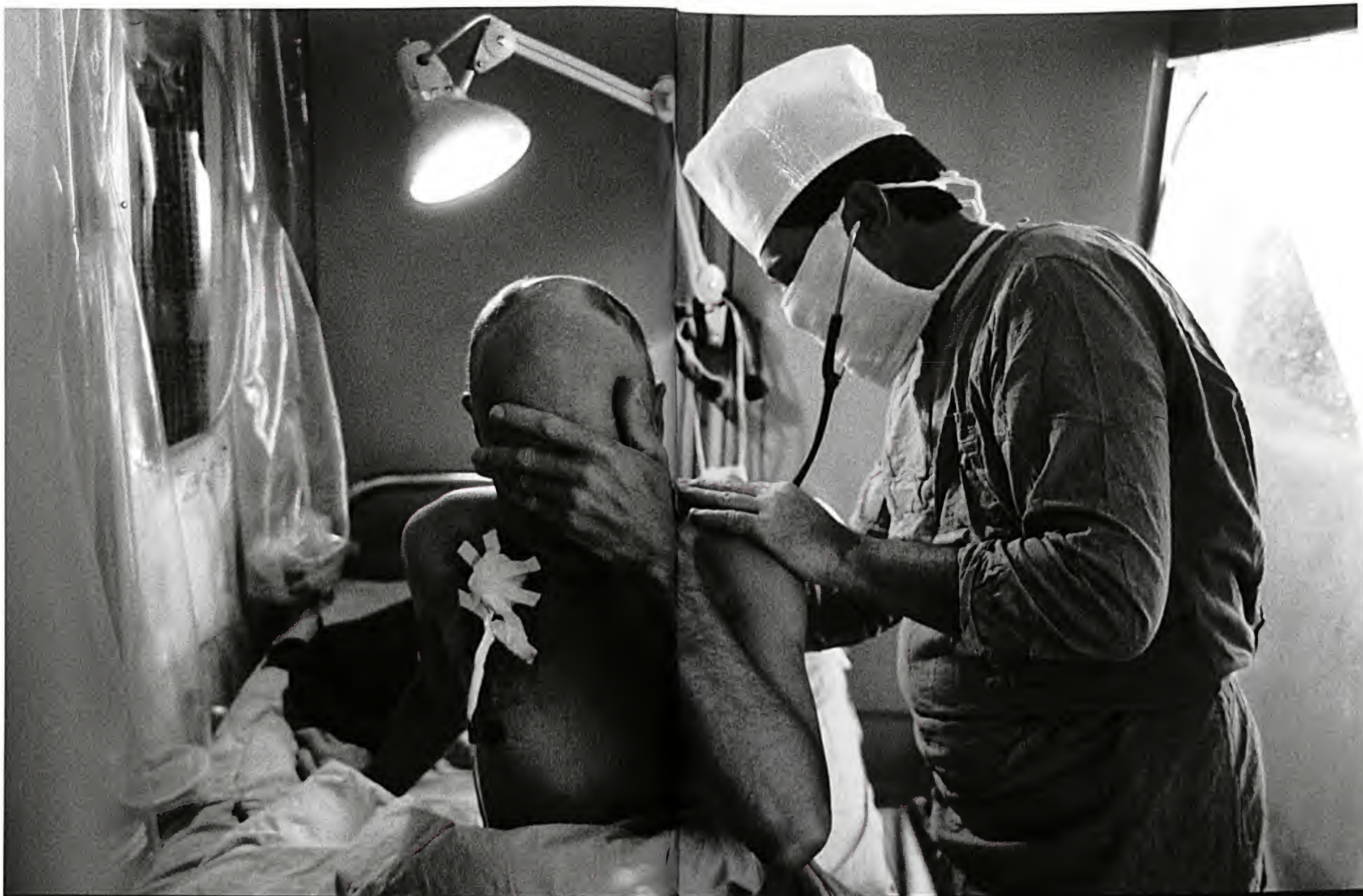
"The reddened skin turned black, crackly, and dried out, falling off in bloody scabs. A nightmare. I had a spray, which relieved him. But the clinic only had limited quantities."

Larissa, wife of a liquidator



Clinic Number 6. This Moscow clinic specialized in treating irradiated patients, but the first Chernobyl liquidators and firefighters died.





**Few transplants succeeded.** Like many who suffered radiation, this patient at clinic Number 6 underwent a bone marrow transplant. He knows that the game is far from over.





The burial of a "Roof Cat." The family and his fellow dosimeter experts cry at the funeral of Alexander Goureviev, who died following his exposure to radiation in Kiev in 1988.



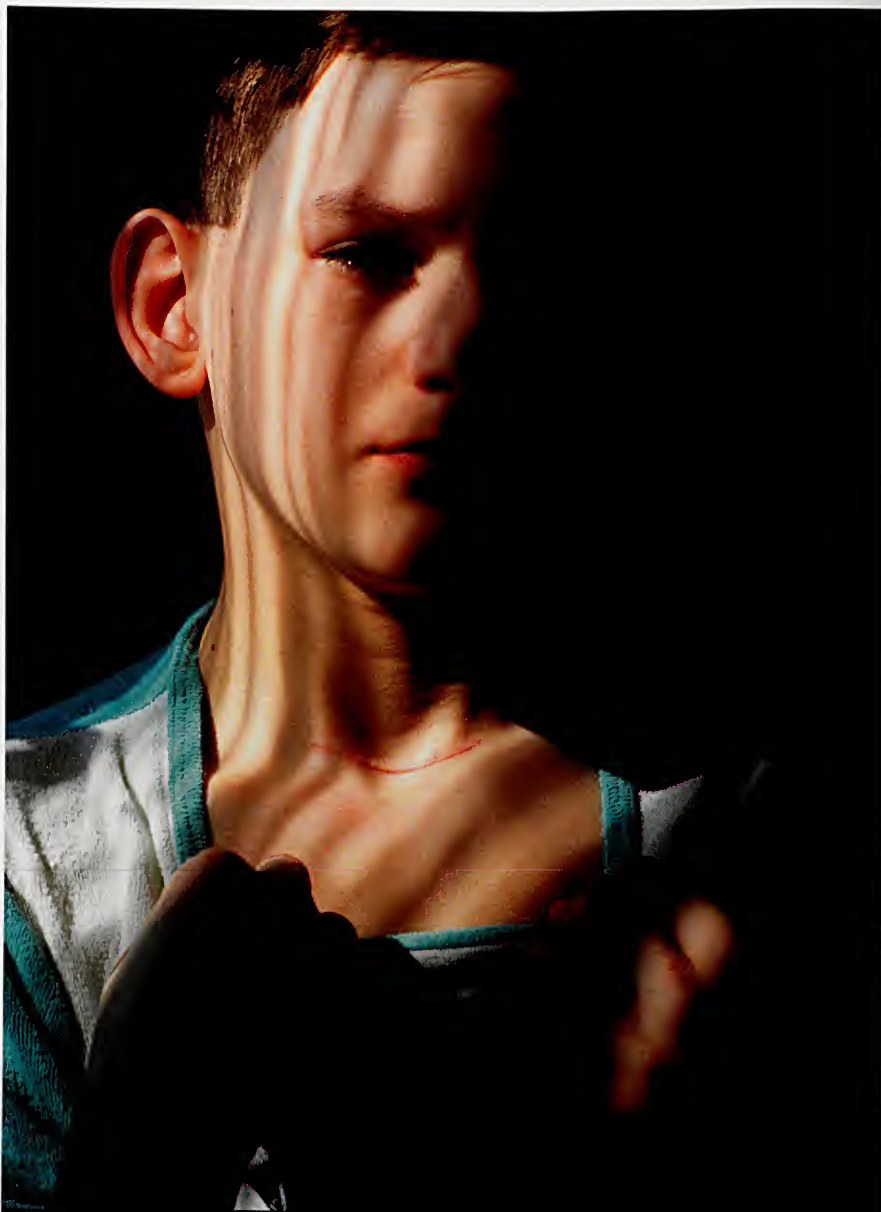


**The return of Robert Gale.** Seven years later, Gale (left) visits the Ukraine to greet his former patient, the plant mechanic, hospitalized in Kiev for a checkup. An especially



touching reunion since only two of the bone marrow transplants Gale performed on victims of radiation at Chernobyl were successful.





**Thyroid cancer.** The most frequent consequence of the "Chernobyl cloud." In 1990, a child, operated on for a thyroid condition in the Gomel region of Belarus shows his scar.



**A Chernobyl victim.** In 1988, Igor Kostin found this little boy in a Belarus orphanage. After the publication of his photo in *Stern* magazine, an English family adopted the child and made arrangements to operate on and care for him. Today he is eighteen years old.





"Chernobyl-management's irresponsibility," (Kiev, April 1988) claim the demonstrators while protesting the absence of transparency surrounding the disaster. We witness the awakening of popular anger.

## A MUTINY THE SUM OF ALL ANGER



IN THE FIRST MONTHS OF YEAR 1987, the streets of Kiev lost their carefree feeling. Demonstrations were organized, first measured and silent, then loud and vindictive. The Ukrainians knew that they had been lied to. Everyone knew a person who had been contaminated by the radioactivity, someone who had died or who was sick. The sanitary and health situation worsened, illnesses linked to the radiation had multiplied. Walking through Kiev, hesitant and weakened by the disease and the treatments, I could not help but look at the angry processions, decked out in the colors of the atom-red, yellow and black-and sometimes also with the Ukrainian flag, though it was prohibited.

Many liquidators were already dead. Their families were asking (in vain) for explanations. Instead, they were forbidden even to repatriate the bodies which are buried in Moscow in zinc coffins to prevent the radiation from spreading. Burial ceremonies were hurried, supervised by the authorities. Afterwards, the parents were denied any compensation or pension-since nothing happened at Chernobyl. Or very little. In the morning, at the hospital, I watched nurses clean a room from top to bottom. The body was already in the morgue. In a couple of hours, the family would be notified and that would be the end of it.

Communism does not take into account the individual. In the case of Chernobyl, it refused to even consider the sacrifices made by thousands of men, mostly servicemen and reservists. The authorities and the army kept secret the victims' lists and gave no details on the circumstances of their deaths. In due time, certain families managed to get compensated, by dint of protests and demonstrations. Others were not indemnified and probably never will be.

Since 1987, the survivors and the victims' families persevered in their fight, gathering every year at unofficial memorial services. You would see women in processions, touched by a neverending, omni-present pain, hidden behind candles which they protected with their hands, their faces barely lit by the fragile flame. You could hear murmurs, sometimes music, and smell the flowers and the burning incense. Last year, during the "orange revolution," I found all those things. The colors, the smells, the noise and the rhythm of the crowd, all that comes partly from Chernobyl, one of these unique moments in history where a whole nation comes together. I, myself, found this revolution particularly moving. And it confirmed to me that something *did* happen at Chernobyl.



A children's march (26 April 1996). To mark the 10th anniversary of Chernobyl, youngsters gather in St. Sophia's Plaza in Kiev. This young man drew a picture of a liquidator, saving the life of a child and his mother under the protection of angels.





**Anger roars.** In August 1989, a demonstration becomes a meeting at the Dynamo Stadium in Kiev. People wore flags with their national colors—green (Belarus), blue/yellow (Ukraine), and tri-color (Russia)—which were adopted by the national liberation movements. They demanded the

public release of all secret documents related to the Chernobyl disaster. At the forefront, a slogan: "A Nuremberg trial for Chernobyl."

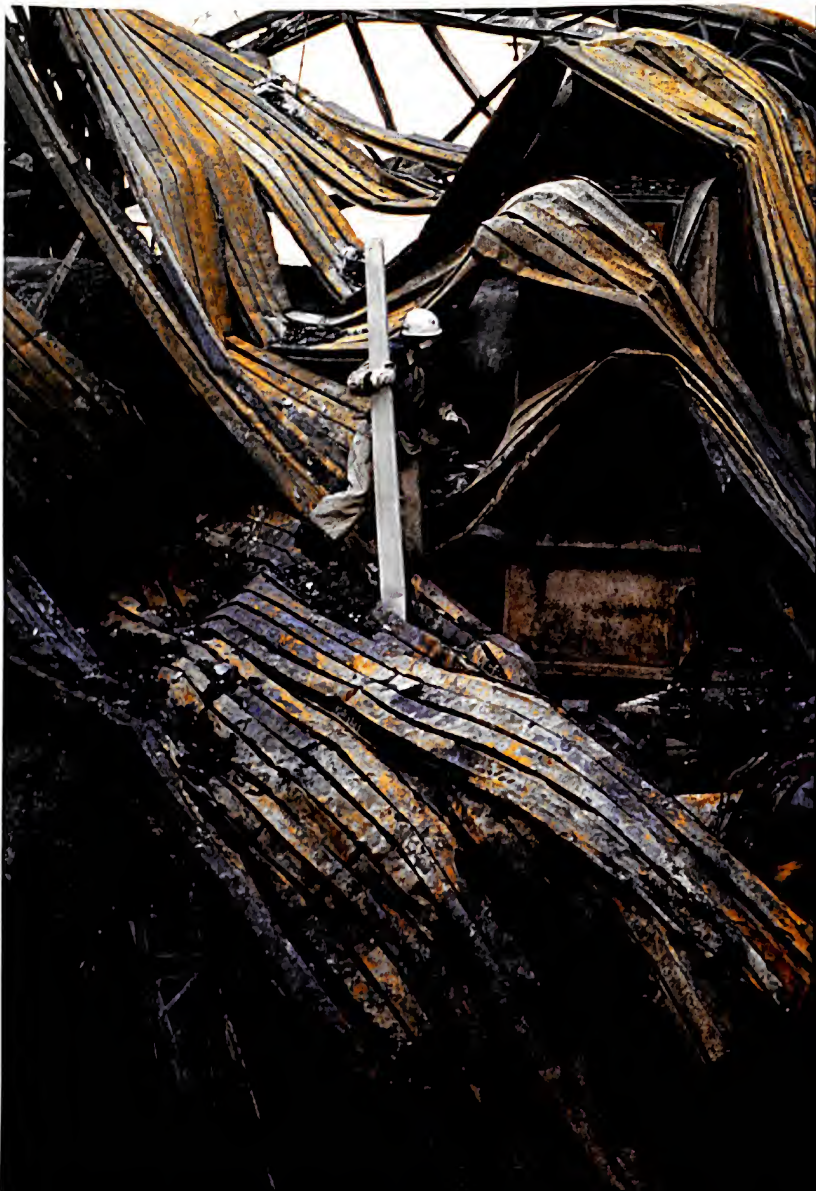




**Down with the Communists!** In October 1990, students organized a hunger strike in downtown Kiev. They demanded the abolishment of the Communist party, the resignation of the government, the non-ratification of the "Union Treaty" (a Soviet Union reform project),

and the shutdown of the Chernobyl nuclear power plant. In the days following, a huge demonstration took place on Khreshchatik, the main street of Kiev.





The turbine room in Block 2. An explosion occurred there on the night of October 11, 1991, but few people knew about it. Igor Kostin managed to get there immediately. His photographs are the only witness of this accident.

## OCTOBER 11, 1991

### A NEW EXPLOSION



THE PHONE RANG in the middle of the night. My wife, Alla, picked it up and passed it to me. It was one of my liquidator friends. He was at the nuclear plant. He mentioned an explosion in Block 2 and asked if I could come. So as I got up and put some clothes on, Alla questioned me. "What's happening? Why are you rushing out?" I explained that there was a new incident at Chernobyl and that I didn't have any more information.

While I got my equipment ready, Alla got up, dressed, grabbed the car keys, and waited for me at the front door. I hugged her tightly and promised to call her as soon as I arrived. She trembled fearfully. She did not want me to leave. She begged me to stay. I lay my hand on her cheek and wiped away her tears with my thumb.

"We've talked about it. You know I need to go back."

"So, take me with you. I would rather die from radiation than go crazy waiting for you in this apartment."

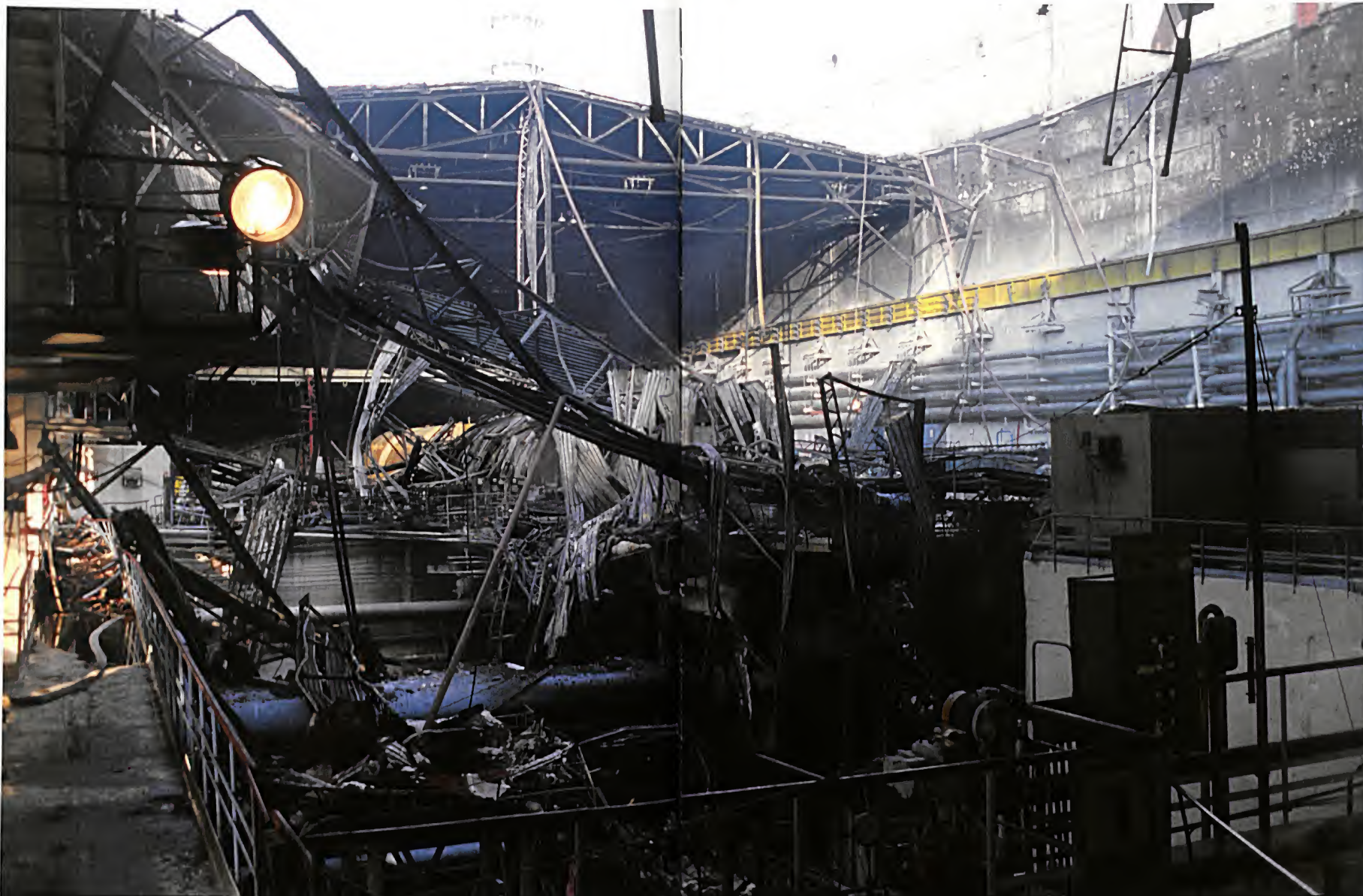
As we neared the first checkpoint of the forbidden zone around the Chernobyl plant, I still wondered why I had allowed Alla to accompany me. At the checkpoint, there was an unusual excitement. Militiamen were nervous. Their faces showed signs of fatigue, fear, and questions. I drove up, rolled down my window and showed my pass to the soldiers. A soldier checked it, gave it back to me and waited for Alla's. We knew entering the zone without authorization was risky. But tonight, it was just impossible. The orders were clear: No one could enter the zone without a pass. It was a matter of state security. I tried to plead with the soldiers in vain. Alla could not accompany me any farther.

WHILE WALKING THOUGH THE CHECKPOINT, I glanced back. Motionless, Alla was sitting in the front seat of the car. She did not move. She waited for me. The day was October 12th, 1991, it was dawn and I was facing Block 2. I recognized the familiar faces, wearing mining helmets, gas masks, and dark bodysuits. I recognized their muffled steps. I could hear their heavy breathing. I could see in their eyes the tranquility of good workers and good soldiers mixed with a bit of fear—just a little bit. My skin itched furiously. I headed toward a group of employees. Some recognized me. I wondered what was going on. Quickly, they explained that an operator made a mistake and a fire had broken out inside the building. Fortunately, even though the explosion had ripped

the roof off, there was no nuclear leak. The reactor was untouched. For a few hours, thoughts of a repeat disaster were feared. The incident was now under control; and the block was not in order. I realized that nothing had changed. The plant hadn't been rebuilt or redeveloped. It was the same tired industrial landscape crowded with small groups of men in white uniforms. Nothing had been done to improve the reactors' isolation. In the event of an explosion, the risks of radioactive dusts' in the atmosphere were the same. My photographs showed the same gray walls, now five years older. The radioactivity was there, the "black evil" had done its work. The shadow of 1986 was everywhere. I had the impression I was visiting the castle of Sleeping Beauty. I took photographs, I made sure that all this was only an alert without any grave consequence and I walked back towards the check point where Alla was waiting for me. The militiamen took care of her and had already informed her that no danger existed. Our drive home was animated—we chatted, we laughed like two kids, happy to be together, happy to be alive.

A FEW WEEKS LATER, I decided to go back to Chernobyl. I thought I had seen everything there was to see at the power station, I thought I knew everything there was to know, but I had missed one thing. A trip. I wanted to visit the epicenter of the explosion, meaning the heart of the fourth reactor, which is located forty meters underground. I could not go alone. Engineer Reichtmann accompanied me. He took part in the liquidation and afterwards remained working at the power station. Once we had reached the bottom, my eyes were looking at a place where no man had ever returned in five years. The walls were an astonishing color—a lunar color. Wrapped up in my leaded clothing, I looked like a cosmonaut. I frenetically started taking pictures. Walking through the debris, I wanted to see everything. "Let's get out of here! Igor, wake up!" Reichtmann ended up howling. But I was paralyzed. All I could think of were the pictures I was taking. Nothing else mattered. Reichtman pulled me after him. Later, he helped me take off my suit and pushed me under the shower. We scrubbed our backs like two liquidators.





**Control the damage.** Fortunately, there were no leaks of nuclear materials following this violent explosion. However, they had to sprinkle the debris to dampen down the metallic dust.





**In the ruins.** After the explosion, the room had to quickly be cleaned of the twisted metal and all kinds of debris. Two workers gather the debris in a plastic bag to be disposed of.



**Humor, always and forever.** The explosion caused the roof to blow off, but the crew put up a funny sign: "Don't work in a badly-lit area!" They are preparing bags filled with debris before disposing of them.





**Like ants.** Workers remove pieces of a metallic structure which had fallen on the surface of a gigantic turbine. After this incident (which could have degenerated into a major disaster), Block 2 was permanently shut down.



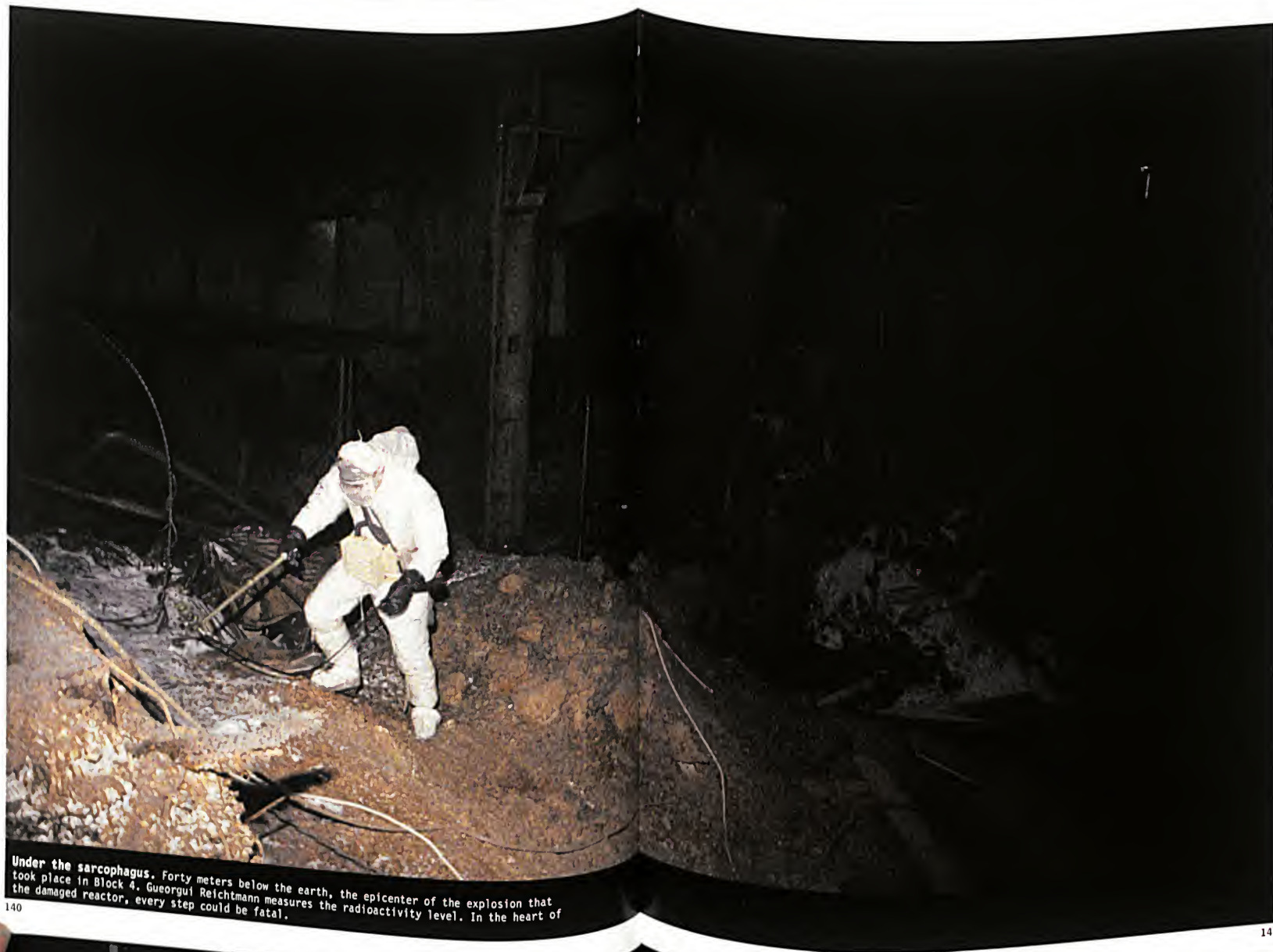




**A fearless guide.** The new accident gave Igor Kostin the urge to descend under the sarcophagus. To make that descent, there was no better guide than Gueorgui Reichmann, a plant engineer who knew all the hidden crevices. So much so, that prior to the construction

of the sarcophagus, they christened the destroyed Block 4 "the Reichtmatorium." Reichmann surveys the radiation level of a room in Block 4 before continuing his visit with Igor Kostin.





Under the sarcophagus. Forty meters below the earth, the epicenter of the explosion that took place in Block 4. Gueorgui Reichtmann measures the radioactivity level. In the heart of the damaged reactor, every step could be fatal.





The barricade, 1989. Mirnoie, a village located sixty kilometers from the power plant, has just been evacuated. A soldier installs a barricade. This is the road to nowhere.

**FORBIDDEN ZONE**  
**SECURITY SECTOR WITHIN**  
**THE PLANT**



I AM WALKING IN THE CONTAMINATED ZONE around Chernobyl. In contrast with the days that first followed the disaster, it does not look like an apocalyptic landscape. Nature seems to have gradually taken over. Some trees have leaves with an astonishing color, but that is all. Otherwise, the smell of soil and grass prevails, as it does throughout the Ukrainian countryside. Therefore, nothing to worry about. The panels, the grids and the checkpoints that close the access to the contaminated zone, are located, more or less, thirty kilometers from the power station. The borderline between the contaminated and the healthy land (or less-healthy) is irregular, almost random. The contamination cannot be contained by the barbed wire installed by the army, yet certain old people return to their homes a few months after the disaster. They recognize me and, like in the old days, offer me food, bacon, and mushrooms, and invite me to hunt. These people have lived there for several years now, absorbing daily doses of radioactivity from the food, the air, the rains, the wood. Agriculture is officially prohibited, but next to the dilapidated houses, most of which are abandoned, one sees small, exuberant and colorful gardens. The signs saying "High Radiation" don't stop them. Children are playing in the playgrounds. Authorities advise against walking in the woods where radioactivity is higher than in the fields. The majority of the inhabitants appear to be in good health, although they have received massive amounts of radiations. Some died from less than that.

ON THE ROAD TO PRIPIAT, I spotted a tree—a pine whose form is abnormal. Like other conifers, some leaves had begun to appear at the top and the end of the branches. It looked like a cross. I was told that during the occupation, the Germans had made a gallows of it for the resistance fighters. I took several photographs of the tree. I waited a long time for the perfect light, the best way to capture the truth of that tree. I would need to come back. A few years later, the tree fell by itself. It had become more and more shredded when touched. It had become too weak to resist the rains and the winds.



A missing tree. During the Second World War, the Germans used this type of pine to hang prisoners condemned to death. It became a symbol of the fight against Nazism. Years after the plant explosion, the tree fell, alone.





**A botanical experience (Summer 1986).** Liquidators wearing chemical warfare protective gear, inappropriate for radiation, and outfitted in gas masks known as "pig snouts," measure the radiation levels in a field located in the thirty-kilometer forbidden zone with the help

of old-fashioned meters. The young shoots will not be harvested, but will allow scientists to study the genetic mutations of plants.





**The artificial lake (June 1986).** Located next to the plant, it serves as a water reservoir to cool down the turbines. The radiation made lots of fish abnormally fat and sluggish. They were thrown up

against the bank and could be caught barehanded. Here, a dosimeter specialist measures the level of radiation in the dead fish.





Tatsenki, an evacuated village in the thirty-kilometer forbidden zone. A liquidator from the chemical team, in protective gear including a gas mask, measures the radioactive level of an abandoned house.



A routine control (May 5, 1986). A dosimeter technician measures radioactivity on the road leading to the evacuated town of Chernobyl. Although it had been decontaminated, after a windy day it needed to be decontaminated again.





**An odd evacuation.** Even beyond the thirty-kilometer radius of the forbidden zone, villages are evacuated because the ground is contaminated. Near Jitomir, a soldier installs a

barricade to restrict access. Nearby a tractor continues harvesting the field, consequently spreading radioactive dust.



"I had never gone to war but I feel like it's something I know...Impossible to explain where that comes from...But it's linked to death..."

Oleg Vorobei, liquidator



Only the storks live here. A view of the village of Mirnoe some years after the evacuation. The storks' nest is much lower than usual. They no longer fear men.





Of no interest to looters. In evacuated villages, looters took everything that had any value at all. They had no scruples and sold furniture and other dirty (radioactive) items

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at the market. The icons from this house are just simple printed images—of no interest to the looters.

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**Mass in Chernobyl.** The only church in the forbidden zone provides services to the personnel who work there, the "recalcitrants" who refuse to leave, and the evacuees who returned to visit their loved ones' graves.

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**A premonition.** Maria Primatchenko, the world-renowned Ukrainian primitive art painter, in front of her house in Bolotnia, at the border of the forbidden zone. She had dreamed about a fire at the power plant and painted it just before it happened.

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**An eight-footed foal.** Between 1988 and 1990, a high birthrate of monstrous animals occurred near Jitomir, a region particularly affected by the radiation. Igor Kostin sent pictures of those mutants (who lived only for a few hours), to President Gorbachev. He got no response.



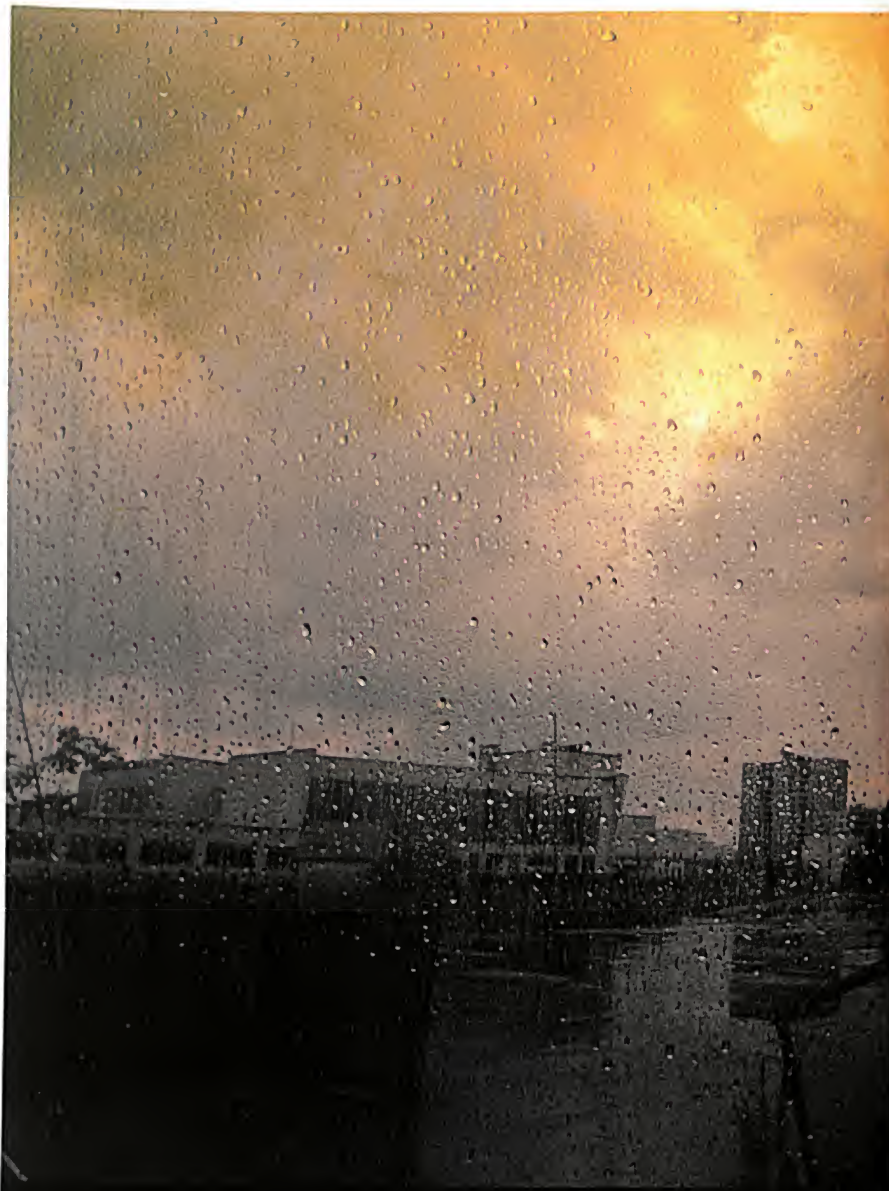
"Clothes and food laid side by side: suits, dresses, sausages, and margarine. Food was not wrapped in plastic. We would measure the sausages and eggs that were part of the radioactive waste."

Marat Philippovitch Kokhanov,  
former Chief Engineer of the Belarus Institute for Nuclear Energy



**Farewells.** A group of Italian journalists visited an evacuated village where a few older people had stayed behind. As a farewell token, the villagers, who had nothing, gave each visitor a small packet of sunflower seeds: the only thing they had to share.





**Pripiat's Ferris wheel.** The amusement park of Pripiat, now a ghost town, is forever a powerful symbol of a "liquidated life."







An amusement park turned ghost town (Spring 1992). The town of Pripyat, with one of the youngest populations in the USSR, had 17,000 kids who enjoyed playing in these bumper cars. At the time, this attraction was rare in the USSR.





A dreamer. What to do except dream when one is the guard at the control point to Pripiat? In summer of 1991, this meter, which replaced the clock, shows the level of radioactivity: 171 microrentgens per hour.





Pripyat, a ghost town under the snow (1987). This model city of 47,000 inhabitants was built during the 70s, to house the plant personnel. These buildings will be uninhabited for a long time: the town was contaminated by plutonium isotopes whose life expectancy is forty-seven thousand years.





**A terrible waste.** Soviets were taught to not waste their "socialist property." But in Chernobyl, vehicle engines quickly became contaminated. Here, a soldier puts up a warning sign near an abandoned vehicle site.

## THE MACHINE CEMETERY AN OPEN-AIR NUCLEAR DUMP



I GET INTO THE HELICOPTER with my equipment. Two cameras, as usual, that I check patiently, and new film. The familiar noise of the blades muffles the beginning of my conversation with the pilot. We fly over the contaminated zone whose colors are almost natural. We distinguish some human and animal silhouettes: peaceful. We pass many birds, storks and gray cranes that had all but disappeared from the area in the 70s.

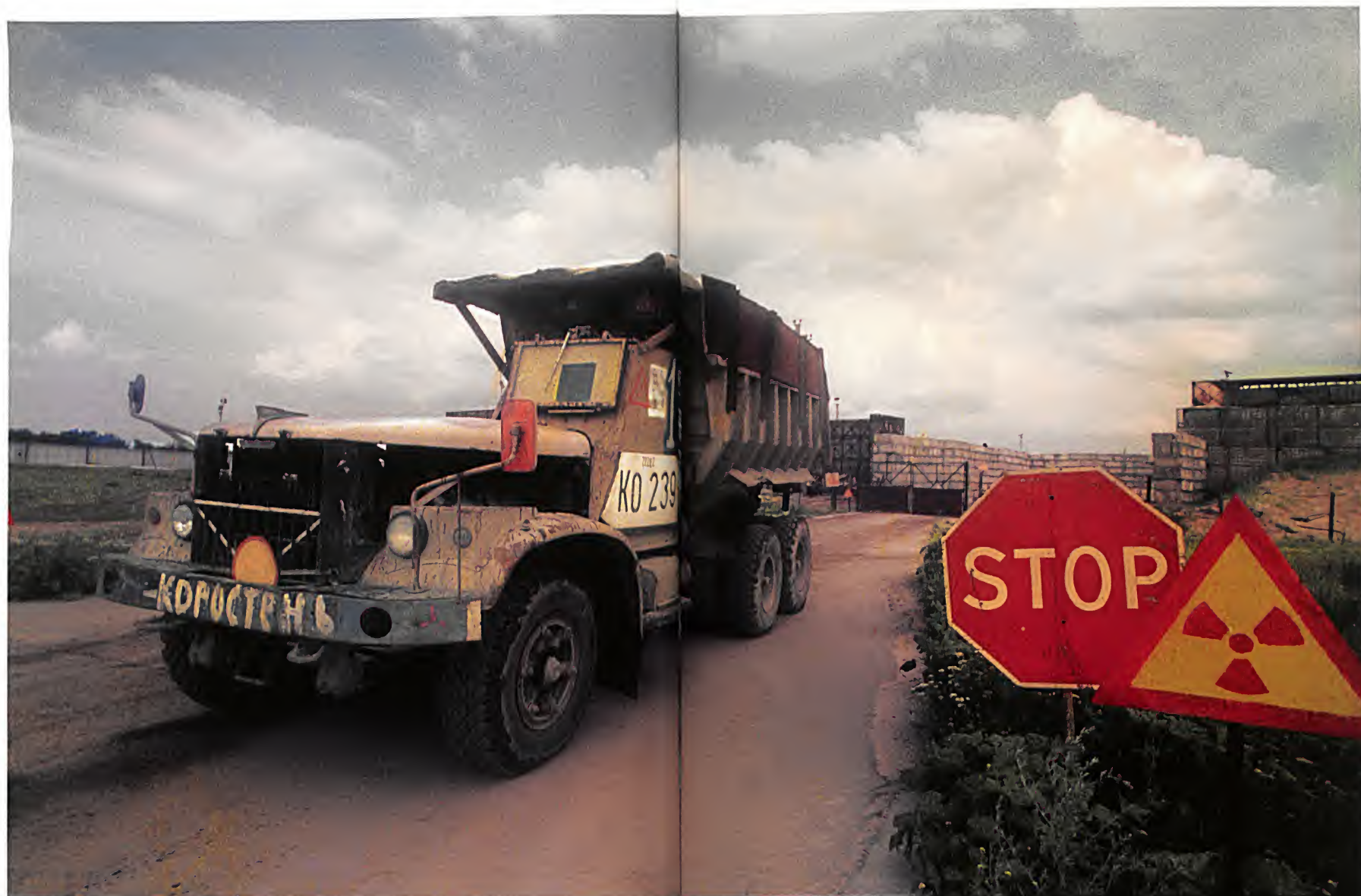
On that day, with the wind blowing in the trees, I decided to take photographs of the largest of the eight hundred nuclear dumps in the zone. The Rossokha site is full of construction material, trucks, vehicles of all kinds that were used during the decontamination. All these materials were gathered together and left on the site after some holes were dug for them. The authorities haven't recorded the abandoned materials, or tracked them, but it doesn't matter: their presence is visible from afar. According to my information, the abandoned materials are spread over an estimated million square meters. On the left, I spot something. I make a sign to the pilot who directs the helicopter towards a chaotic pile, bathed in an unusual light, with an astonishing halo. It is not the sun: at this hour, it has not set yet. Although I know that radioactivity does not emit visible radiations, I have the impression that this strange light emanates from the pile itself. The dosimeter beeps again and again. The radioactivity around this cemetery is really bad. It is forbidden to come near it on the ground. If anyone tries, he will die. We fly over ten or more kilometers of carcasses of helicopters, armored vehicles, and fire trucks. I open the window and lean forward. I take a photograph. During the season of flood and rain, the radioactive particles are carried towards the surrounding rivers. The dikes are insufficient and will need to be reinforced. The radioactive isotopes are also diffused, slowly but surely, through the soil to the water table and to the underwater springs. The Pripiat River is threatened. Authorities thought of diverting its course in order to make it circumvent the contaminated zone, but they lacked the funding. The risk is, however, huge, because this tributary of Dniepr runs towards Kiev and partially supplies its drinking water.

I make a sign to the pilot. I do not have any more film. There's no need for us to stay any longer. We fly back. I do not even glance at the cemetery of machines below.



Trucks as far as the eye can see (1992). After the first months, trucks were no longer buried, but abandoned instead. Here, Rossokha: largest military dump in the forbidden zone.





**A civilized burial.** This graveyard, especially designed to store contaminated vehicles, is surrounded by a protective wall. It would later be reinforced with a concrete slab and soil. But this kind of dump is extremely rare.





**Criminal negligence.** Most of the pits designed to store vehicles are shallow, unprotected, and exposed to the air. This is criminal negligence. The rain falling on the dump carries with



it nuclear particles that contaminate the water table and the Pripjat river basin, a tributary of the Dniepr.





Aerial view of the pit.







Where are the stolen engines? Hundreds of trucks, tanks, and helicopters were found at Rossokha. Despite the barbed wire fences surrounding the site, only empty carcasses remained. Thieves had stolen and recycled every sellable item.







An unauthorized comeback (Spring 1987). A year after the disaster, an old woman decides to return to her home in the forbidden zone. "I was born here, I will die here," she explained to Igor Kostin.

RETURN TO  
CHERNOBYL  
"I WAS BORN HERE,  
I WILL DIE HERE"



AFTER EVERY TRIP, I needed more and more time to recover. The worst were the villages. Lots of people had deserted the forbidden area. The abandoned houses were crumbling and collapsing very quickly. When a house, even a very old house is inhabited, it stands up. Human strength energizes the home. There are many abandoned villages in Ukraine, in Belarus, and even in Russia. I entered some houses without knowing why. It was like desecrating someone's grave. The feeling I have is inexpressible. People left icons fixed on the walls, and all their affairs in disorder. It was an indescribable yet beautiful chaos. When I took the time to sit for a moment, I could even smell the odor of the previous inhabitants. Then I left, exhausted. The more I visited abandoned houses, the sicker I got when I returned to Kiev.

I feel an attachment to all living creatures here. Today, in the contaminated zone of Chernobyl, there are many large animals: wild horses and cows, and then rodents, insects, and birds, which all returned after the explosion. Even endangered species have appeared—wolves and lynxes, in particular—all too glad of the sudden departure of their predator, man. Yet unlike man, they seem to adapt to the radioactivity, with the exception, however, of some genetic diseases and mutations.

A FEW THOUSAND PEOPLE chose to return to the forbidden areas. We call them the "Samosioly" ("those who moved in by themselves"). They hunt and cultivate small gardens to eat. All radioactive, of course, but we rarely bring them food from the outside world. I like to see them living simply. Their voices, their warmth all remind me of the area as it was before the catastrophe. I often go back, and I know that it makes them happy. Unfortunately, this time, the doctors informed me before leaving it was the last trip I should make there. I should not take one milliroentgen more. I already had absorbed too much. But I know that I will go back because it is my work. They all wait for me in the zone, although I always end up refusing to hunt. I cannot shoot at an animal. Sometimes, when the conversations are serious, I hear them say terrible words about themselves: "We live in a coffin," abandoned, useless, forgotten behind the barbed wire. But they all insist that they would rather live here than anywhere else, than in the cities where they were relocated in a hurry in 1986-1987. Here, the air is pure—no car exhaust,

no pollution, they say. In the city, they felt like they were suffocating in their housing projects. They feel better here, living the way they have always lived, working the land, planting tomatoes, and collecting mushrooms in the forest. And then, at least here nobody bothers them, except a few scientists who try to explain to them the danger of the situation.

But it's no big deal. They are used to it. In Kiev, where a lot of people were relocated, they weren't welcomed with open arms. They accused them of being radioactive. They were afraid of them, and they were jealous that they didn't have to wait in line for their houses. In the USSR we stand in line for everything.

Several years later some people finally returned here. The militia let them through. The houses were almost in ruins, the windows condemned, and inside everything had been stolen. Some houses had disappeared, buried. But they were home. And they rebuilt their dilapidated farms.

IN RUSSIA, in the region of Briansk, entire families still lived in their houses. Several hours by car or several minutes by helicopter was all it took to get there. I took a dosimeter with me out of curiosity. I realized that the radioactivity was 300 times higher than the authorized level. And the littlest children still lived. The authorities didn't take any action. Same thing in Belarus, in the region of Gomel: entire families abandoned behind the barbed wire. They ate what they grew in their parcel of contaminated land. They lived simply, ignoring their dramatic situation. At night, when I returned to Kiev, between my clean sheets in my orderly room, I could not sleep.

"The teacher said: 'Draw radiation,' so I drew yellow rain...and a red river..."

Ioulia Taraskina, 15 years old





**The odds and ends of an abandoned life.** An evacuated village in the forbidden zone. Children used to leave their dolls on the windowsills. But neither this doll nor this kettle will ever be used again.



**When we don't have the means to start over.** The Soviet government offered to relocate the rural populations of the Jitomir region. But this woman chose to stay at home, where she continues to live off her land.





**Under Brezhnev's portrait.** This man, who refused to leave his village during the evacuation, eats his solitary meal: potatoes, bread, and vodka. Rumor has it that vodka protects against radiation!



**Little doses of radiation.** The harvest was good in spite of the contamination of her soil by cesium-137. Throughout the year, she consumes her daily dose of radioactive isotopes.





**The Geiger counter goes wild.** This mother knows the danger but doesn't want to leave her village near Jitomir. She does not have a job that would allow her to make a living elsewhere, and a vegetable garden does not grow in the blink of an eye.



**Winter reserves.** Potatoes constitute the main food in the regions most severely affected by the Chernobyl disaster. Contaminated or not, people eat them all winter long.





**A difficult choice.** The government was not soft on the "recalcitrant." For many years, they lived without electricity, without shops, and without medical help. In order to buy any provisions, they had to walk ten or twenty kilometers.





Happiness is in the meadow. Red poppies grow wild in the forbidden zone. Even their color matches the signs that warn the field is contaminated.

# THE ATOM'S LEGACY

## THE MIRAGE OF THE GARDEN OF EDEN



FROM MY LAST TRIP to Chernobyl, I came back with beautiful photographs. I wandered through the countryside surrounding Chernobyl with my cameras. When I arrived there for the first time, everything was devastated; it was the apocalypse. The animals had run away or were dead. I approached the plant's cooling basin, a twenty-two square-kilometer artificial lake. An employee pointed out to me, without saying anything, the big shadows under the surface: catfish, some of them more than one meter long. Although I had been told of their return to the highly contaminated waters of the basin, I was impressed. Scientists had collected a few of them to study the effects of radioactivity. They realized that their flesh was fine; only the skeletons were contaminated. Standing next to me, the employee threw pieces of bread to the fish and watched them fighting. I smiled and walked away, leaving these harmless sounds behind.

ON THE ROAD, I came across all kind of animal species who can survive under these latitudes, and in great numbers. The evacuation of the people transformed the zone into a strange natural reserve where wild animals seemed more protected than anywhere else, although they were sometimes subjected to radiation ten times or a hundred times greater than the permissible average. People's departure has compensated for the negative consequences of the nuclear x-rays. In the end, the worst nuclear accident appeared to be less harmful than hunting and fishing. Later on, a conversation with one of the plant's directors confirmed this. I told him that hunters had mentioned wild boars weighing more than 300 kilos. I asked him if this has anything to do with the radiation. He started laughing. No, it is has nothing to do with the radiation, they are just old wild boars! Because here at Chernobyl, animals live longer than anywhere else and they have the time to get fatter. Their habitat definitely exposes them to radiation, but in general, they live well. It is paradise on earth. Again, we laughed. Humor and high spirits are our best weapons. This was always the way here. With the liquidators, the mood was cheerful and relaxed. We used to tell jokes constantly as if the disaster we were witnessing did not really exist, as if all that were happening was one big joke.

IT IS MY LAST TRIP to Chernobyl and I have trouble leaving. If one day I am asked to come back, I will, I am sure. But for now, as one

never knows, I act as if it were my last visit. I am full of the odors of humid earth that emerge from the fields that have turned into a prairie. I walk along the forests where the traces of old pathways have disappeared. I pick up a leaf, then another. A fruit. The landscape is both familiar and beautiful. Any signs of irradiated nature are barely visible. Has their DNA been modified? Are these nuclear plants? Mutants? From afar, it resembles a natural reserve, maybe not the most beautiful in Europe, but certainly the strangest one in the world.

Further along, I come across men harvesting small private gardens. The light falls vertically on the extremely white flowers. There is little wind, it is warm. Men are chatting; it is a day like any other day. Suddenly, I realize that something is missing. I have the feeling that everything is false, artificial. I stop and look around. I inhale the humid odor surrounding me and I understand. I do not smell the apple blossoms a few meters away. I walk toward a patch of blossoming lilies, knowing that at the beginning of summer these bushes give off very strong and noticeable fragrances. However—nothing. I can't smell a thing. I take a few steps back. I feel dizzy. Am I sick? Have I lost my sense of smell? Or am I in the middle of a scene where everything is fake? I can't answer these questions, but I can feel the evil is definitely there. For thousands of years.

I collect my cameras and I take a dozen more photographs. As long as I am alive, I will continue taking photographs of Chernobyl.





**Forbidden marshlands.** An idyllic landscape surrounding the power plant: forests, fields and rivers. But the sign brings us back to reality: "Radioactivity. Danger zone! Grazing, mowing, gathering mushrooms and berries prohibited."





**Spring has arrived.** Just after the explosion, nature was particularly luxuriant. Radioactivity empowers nature, which, in turn, spreads its tentacles. Here, an orchard in bloom around the region of Chernobyl.





**Chernobyl's apples.** A popular joke at the time: "At the market, a woman yells, 'Buy these beautiful Chernobyl apples!' A man replies, 'Stop screaming that, no one will buy them!'"

The woman replies, "Don't kid yourself—people buy plenty of them! For the mother-in-law, for the wife..."





An abandoned car. To its owners, this car represented a fortune. During the evacuation, they had to leave it behind because metal easily absorbs radioactivity. But the warning sign on

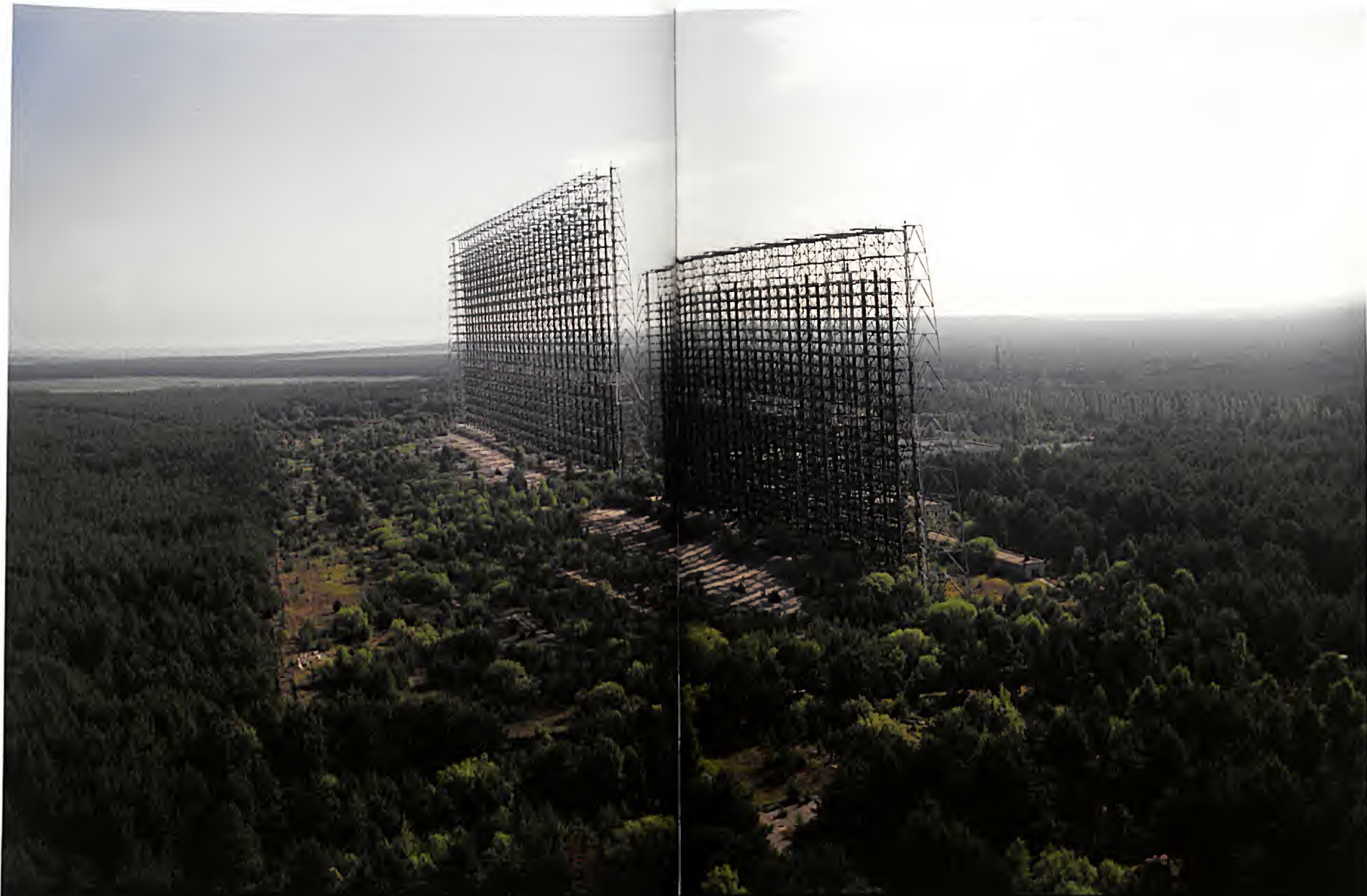
the vehicle's door did not scare the looters. They stripped it of everything under the hood.





Once upon a time, this was a road. A few years ago, these fields were cultivated. Cars and buses passed by. Now, only these signs confirm that a road was once here.





**The Soviet reaction to Star Wars.** This high-powered radar was used to detect launches of NATO intercontinental ballistic missiles. On April 26, 1986, the 900 meter-long station, equipped with a 150-meter antenna and another ninety-meter antenna, shut down just a few

hours after the incident. The radiation totally disrupted its electronic systems. It never operated again.





This house is still standing (December 1992). Igor Kostin wanders through evacuated villages of the Ukraine and Belarus. Here, a deserted village, not bulldozed, in the Gomei region of Belarus.

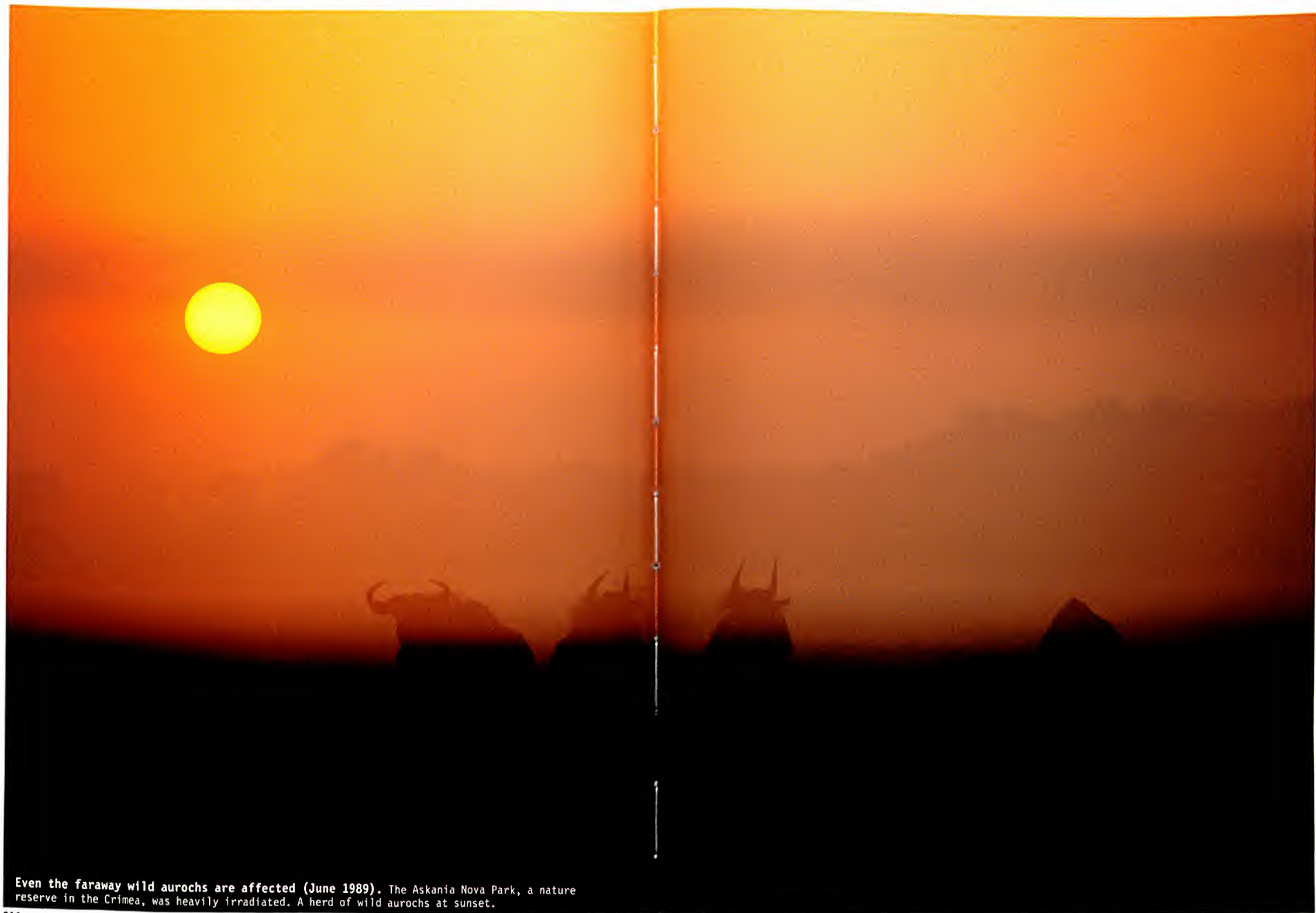




In the zones where the contamination level was considered "limited," evacuation of the villages was not considered necessary. In Belarus there even exists a policy of "repeopling" these territories where they often welcome the families forced to flee conflict zones like the Caucasus,

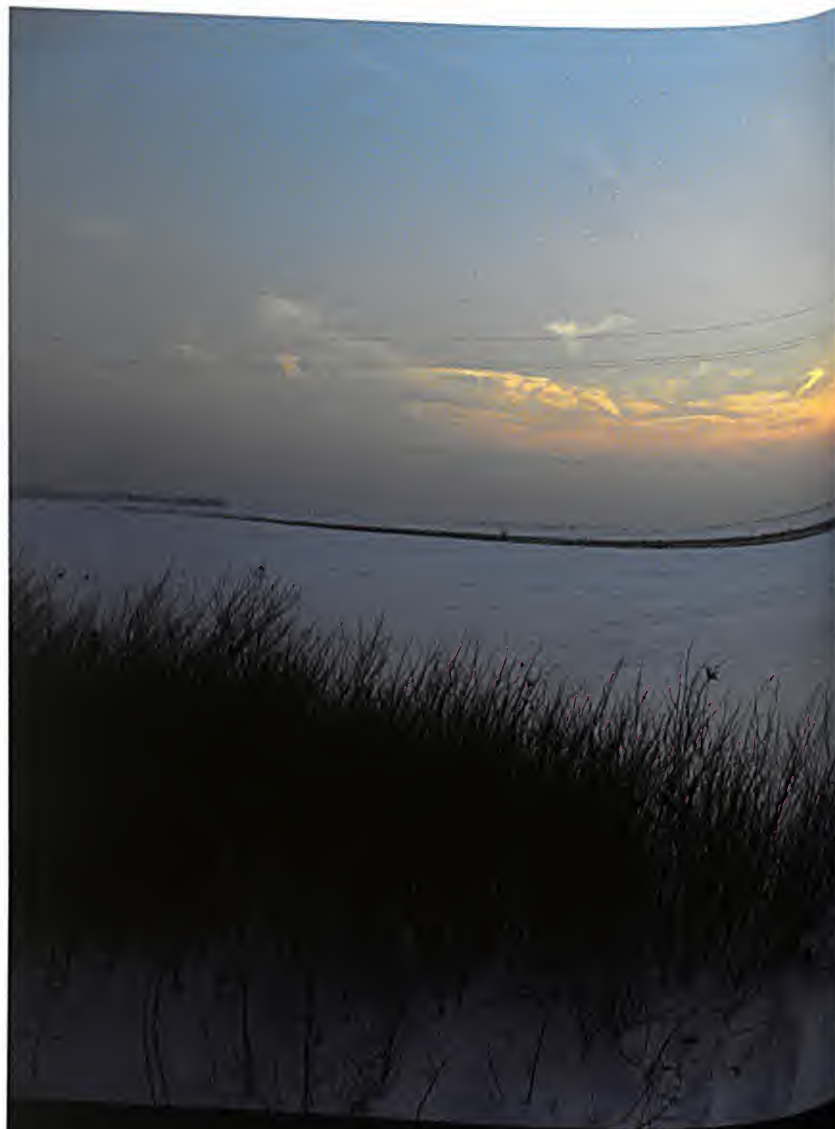
Tajikistan, Uzbekistan, and Kyrgyzstan. Here the refugees are installed in a house in Gomel. To decorate their new lodgings, these poor people only have a couple of empty Coke or syrup bottles.





Even the faraway wild aurochs are affected (June 1989). The Askania Nova Park, a nature reserve in the Crimea, was heavily irradiated. A herd of wild aurochs at sunset.





The great plain (January 1992). The power lines are the only reminder that this region near the power plant was once inhabited.







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# EPILOGUE

24,000 YEARS  
IN THE LIFE OF AN APPLE

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FOR SOME YEARS NOW, humanity has been confronted by an avalanche of major disasters. Tsunamis, hurricanes, earthquakes, explosions, plane crashes, not to mention war and famine, continuously filtering across our TV screens. Why is it, despite this chain of horrors, that Chernobyl's catastrophe, twenty years old, still haunts our imagination? The contradictions of my profession as a journalist helped me resolve the mystery surrounding this drama. It looks like the turning point of a new era. After Chernobyl, humanity started realizing that its desire to control nature and its unstoppable quest for consuming energy make it more fragile than a high-wire aerialist. Whatever factor brought on the catastrophe—bad management? Human error? A defective reactor? Earthquake? Short-circuits in the engine rooms? The consequences go beyond human scale. In fact, how do we measure its consequences over time? While walking through the town of Pripjat, dilapidated after twenty years of abandonment and covered with vegetation, you think at first that after some cleaning operations, those buildings could be rehabilitated. Immediately after, however, the verdict falls: your guide, a lieutenant colonel, in a camouflage uniform, smiles maliciously at you: "The town is contaminated by plutonium, whose expected half-life is 24,000 years." Even cesium-137—that has poisoned tens of thousands of square kilometers in Belarus, Ukraine and Russia, and whose life is much shorter than of plutonium, only thirty years—will remain in the soils well after you will be gone from this world. In general, time perception becomes non-linear: sometimes, time is measured in seconds—it took the reactor a few seconds to become uncontrollable, it took only a few seconds for a liquidator to be irradiated with a deadly dose; some other time, time switches to a geological scale and is then measured in millennia; or by a child with the heart or kidneys of an old man, eaten by the cesium; the catastrophe looks totally like science fiction.

THE GEOGRAPHIC EXTENT OF THE CATASTROPHE is no less striking. The sarcophagus is surrounded by damned areas with blurry and irregular contours like moving sands: "Chernobyl" is a big country inhabited by eight or nine million people of whom two million are children. The first zone, the forbidden zone surrounding the plant, from the Ukrainian and the Belorussian side, spreads over 2,000 square kilometers. In Belarus, this territory is called a "radioecological" natural reserve (who would have imagined such a sense of humor in these people with a such a tragic

past?), and in Ukraine, it was called "the zone." As this name suggests, it is surrounded by barbed wire. In order to get into that "haunted wood" filled with blackberry bushes where the nuclear beast sleeps, it is mandatory to first obtain authorization and to undergo a police check at the entry and the exit. And to go around, you will need, like in hell, a guide. The second zone is the "mandatory relocation" zone and the third zone is the "voluntary relocation" one. So many subtleties to make you understand that those areas are not suitable for living! Finally, the fourth zone has less contaminated soil where life is possible, provided that you stay vigilant: don't eat berries and mushrooms, check the cow's milk, check the garden vegetables and fruits, and if they contain cesium-137, do not eat it (but then, what is left to eat?), take care of your health (but how do you do that if there are no doctors, no nurses, no medical equipment nearby?). And, knowing that the enemy is inaccessible to our senses, and that in the end, we cannot control much, vigilance relaxes.

ON TOP OF EVERYTHING, Chernobyl remains a black hole of information. As the data concerning the spread and the consequences of the catastrophe were initially falsified by the Soviet government. Neither the anti-nuclear association, or the OMS, or the nuclear lobby were ever be able to establish the complete truth of what happened, or the number of victims, or the health, sanitary and ecological consequences. Nevertheless, you just need to visit any cemetery in the contaminated zone and to read on the graves the ages and dates of death to realize the scope of the catastrophe. These numbers were not manipulated.

Through his intense photographs, Igor Kostin resuscitated Chernobyl for 24,000 years.

GALIA ACKERMAN

Journalist and essayist, curator of the exhibition,  
"Once Upon a Time, Chernobyl," Barcelona 2006





MY LIFE AS A MAN



## A CHILDHOOD IN MOLDAVIA

My name is Igor Fedorovich Kostin. I was born on December 27, 1936, in the Moldavian vineyards—a country of sun and wine then called Bessarabia (part of Romania) back when the USSR was just an oriental frontier.

My mother's name was Nadejda Popovitch and my father's was Féodor Kostin. I was three years old when my father left to go to war. I never saw him again. I have vague memories of him and wouldn't recognize him if not for the few photographs my mother kept. An amazing man, according to her, an economist working for a bank with aspirations to found his own. But the war broke out and he died.

I remember growing up in the vineyards, burnt by the sun, in the shade of walnut trees, surrounded by grapes from sunrise to sunset. In the summertime, we would eat walnuts, our hands dyed brown, almost black, only becoming pink again in September. Today, I am convinced that my good health must be attributed to the nuts and the grapes I ate in my childhood. If I resisted Chernobyl's high doses of radioactivity, I owe it to the country of my parents, to what we ate, to everything which surrounded and protected us.

Before the war, we lived in Kichinev, in a magnificent apartment. In 1940, the USSR annexed our region. Then my father left, mobilized by the Red Army, and his salary with him. My mother and I (her only child) were left to live in the suburbs of the city where she had inherited one of these small Moldavian houses, five meters by two, made of a mixture of soil, straw, and horse dung, trampled by foot and dried in the sun. The house still exists. I lived there for thirty-two years, through the war, the occupation, and the so-called "liberation." I became a man in that house. And that house is a place from which, to this day, I draw my strength.

## THE GERMAN OCCUPATION

During the war, we were hungry. It was famine. There was nothing left. I would dig into the trash searching for potato peels. We needed something to eat. I would bring the peels back home. To kill the germs, my mother would wash and cook them over a wood fire.

At the market, we would buy fish oil from the Germans who used it to waterproof their boots. It didn't cost more than a few kopecks, but my mother knew that it was very nourishing. The only down side was its abominable taste. "It is our only chance for survival," she said. She would add raw onions. And we ate, because we were at war and we were hungry. Because without it, we would be dead.

One day, the situation improved slightly. My mother began cooking borscht and cabbage soup, mamaliga and corn cakes. She sold them at the market. Sometimes, she fed them to the neighbors who were also starving. When preparing the mamaliga, she would dilute the flour in water to create a kind of polenta that she served on a big board. We ate it straight from the board. We were so hungry that we would lick the wood.

Around Kichinev, Germans had created concentration camps for Soviet prisoners. After learning about it, my mother prepared buckets of borscht that she gave to the prisoners in the evening. She delivered the buckets under the barbed wire as the prisoners, with their skeletal arms, collected them. I often accompanied her. One day, the guards saw us and opened fire. My mother continued, despite the bullets, because she hoped that she would encounter my father among the ghosts in the camp. After the war and, for many years following, she waited for him, like many women in Moldavia. Some returned, but not my father. Many years later, we received a document certifying that he had died during a bombing.

When the soviets neared Kichinev, we were bombed as well. A German alerted us. We expected the worst. When the bombardment began, the air became metallic. We hid under the bed. A bomb splintered through the whole house a meter above our heads.

"Let's get out of here," my mother said. She retrieved a small box where she had hidden her savings and sat on it. She lifted her skirt and told me to hide under it. In the chaos of the bombing, we waited for a long time. My mother was convinced she would die and could think only of me. She believed that somehow, under her skirt, I would survive.

A German soldier came. He yelled at us to get into his armored car parked in the courtyard. For two hours we hid in one corner of the



vehicle. I listened to the Germans talk about bombs falling and the explosions hitting the armor.

The next morning, in the soft light of dawn, with the sun still not risen, we saw the first Soviet soldiers.

### THE SOVIET OCCUPATION

Famine continued as before—loyal. We would search for old military boots still covered with fish oil and eat them. Really, we would cut them into pieces and eat them!

Then my mother started sewing, because that's what she knew how to do. She opened a small family business. Operating illegally, she was always uneasy at the sound of someone coming in the gate because in those days you could be denounced, even by your neighbors. The business was illegal and each time my mother heard the gate open, she jumped. During that time, we even denounced our neighbors. When they had food to eat, people were afraid to be exposed. How do you explain that you have food while the world starves?

The Soviets purged the region. They sent people to Siberia, people with bigger houses, people with food, people they called "the privileged." As if God had protected my mother and me.

In our life, everything is logical, determined by an invisible force guiding our path. In my life, war determined everything. Raised by my mother, we starved, we feared, with one thought only—how to survive.

Each day, my mother trembled thinking they would capture us. In the morning, we would wake up to discover that the house next door had been emptied. They had had half an hour to pack. We, kids in the neighborhood, would loot the empty homes. We were ashamed, but we couldn't help ourselves.

I had a difficult childhood. I became a thug. I had a knife and a gun. I fought. A bad student, I thought school did not matter. I would rather play football with a tin can.



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1. My father—I was three years old when he left for the war. 2. My mother—She taught me that we can choose our destiny. 3. At the age of four—I didn't yet know I would be an only child. 4. Teenager—I became a delinquent. 5. The army taught me the value of a piece of bread.



People lived only to survive. They did not think about beautiful clothes or gourmet foods. They only thought about what their monthly salary could provide. When we would learn about how people lived in foreign countries, we were in disbelief. For us, it was simply unimaginable.

### MILITARY SERVICE

Then one day, because I was all grown up, I did my military service.

For three years the Army saved me. If I didn't become a criminal it's thanks to the Army. I could not appreciate the value of things, for my mother had always handled everything. The Army taught me about the value of a piece of bread. Even though the Army paid us very little, I saved up money anyway to buy cookies—we were always hungry.

I worked as a sapper, in charge of setting explosives and de-mining. In every war, in every army, the sapper is always the front man. One day, I was on the front line. Our entire regiment got into trucks and drove to the border, near a dense forest. Towards what border? I did not even know. We were told to dig trenches. All day, from eight in the morning to eight at night, we dug. At the end of the day, an officer called me. He asked me to dig a trench for the toilets one meter wide by ten meters long. Everyone else slept while I dug the toilets.

I would fall asleep standing up. I planted my shovel in the clay, and used my arms as a pillow to hold my head. I would sleep five or ten minutes, standing, my hands bleeding. The next day, we kept on digging.

Then they gave us ardent spirits—alcohol that was ninety proof. An assault was scheduled that night. Because of our front line position, we knew we only had five or six hours left to live. We would die in the line of fire. I knew. I understood.

Like our vehicles, we were camouflaged. We drank the alcohol and waited to die. But, at the scheduled hour of the assault, a jeep approached, blowing its horn. Inside was the District General:  
"At ease, at ease men. The Americans withdrew!"

The General stood there. We threw him in the air out of joy. We were

alive! Once again, destiny had saved my life. We were to wait until morning and then go home. Normally, we would have had to clean the camp but we did nothing. We stayed there, happy; impatient to get back into the cars. Was it just a military exercise or a real war situation? Perhaps I will never know.

Months went by, finally. At the end of my service, I realized that I hadn't even once enjoyed any free time. I was too undisciplined and disorganized. Also, I went AWOL. I ended up with a seven-month jail term over three years of service. Seven months was a lot. My superiors agreed. It was really too much—seven months too much. So the regiment commanding officer told me that I owed seven months of active duty because the Army is no sinecure. Nonetheless, my superiors liked me because I was athletic and I drew well.

The next day, the deputy commander invited me into his office: "Kostin, if you want to avoid these seven months, you should...". And he told me how the Army could use me.

Back then, each regiment had what was called "Lininskovo Komnatas"—"Leninrooms" where official and political meeting and ceremonies were held. He told me, "Kostin, if you manage to turn our Lenin (room) into the Army's most beautiful room...".

The job was better than peeling potatoes for seven months, so I started designing the Lenin Salon. I carved letters into wooden boards. I designed complex ornaments. That's how I had escaped an extra seven months of service and my regiment inherited the Army's most beautiful Lenin room.

I finally received my discharge papers. I put on new clothes and met my comrades at the train station. The Corporal was there. He told me to immediately return to the barracks.

"No. I am sorry Corporal."

And he yelled,

"Who discharged you? Who?"

"The Commanding Officer, Corporal!"

And he insulted me loudly until the train departed.





1. I received an honors diploma, letters of recognition, and decorations. 2. One of my many passes. 3. I always dreamed of going to Japan, but not to Hiroshima to be treated for radiation!

## CHOOSE YOUR DESTINY

I came back from the Army to realize that the only thing I knew was sport. I no longer felt like hanging with my old playmates who had all become thugs. I wanted to live differently. I wanted to choose my life.

Because I didn't know any better, I played sports. In 1959 I took up volleyball again and played for my region. Then I played for the Republic of Moldavia's team, and for the Soviet team. It lasted ten years. I broke my arms several times, I tore muscles, I developed problems in my spine and my knees—after ten years, I was done.

Destiny once again came to my rescue. I met a very important man who wanted me to marry his daughter. He settled me in his home. He told me that everything I knew, up until then, had no importance. He told me to study and work with him. I followed his advice. I was a technician and got promoted to senior engineer. Simultaneously, I studied at the Agronomy Institute of Kichinev. One day, I was offered a job at the Kiev Project, the main construction bureau of Kiev.

We were among the first in the USSR to use framing methods to rapidly construct buildings: the "Opalouchka" method. Today, this is used around the world. For that, I invented a machine, filed a patent and was awarded prizes for it. Later, my daughter Dacha would be proud of it.

Thus, I was promoted Chief of Construction. I managed a staff of fifty with guaranteed salary, guaranteed vacation days—everything was guaranteed, but I was bored, once again.

The bureaucratic hassles were awful. To develop a new machine or a new method, all interested parties had to agree: the Regional Institute technical advisory committee, the Ministry, the deputy Minister in charge of equipment, and the investigation commissions.

They told me "Why complicate things? Look outside—for centuries carriages were drawn by horses and they functioned well." At the end, no trace of the initial project remained. The nights I spent searching for solutions, inventing machines, were wasted.



## AMATEUR PHOTOGRAPHER

To clear my mind, I focused on photography. I was still married to my son's mother. My wife was also an engineer. She worked for an urban planning company. I started taking photographs of her. She was a very beautiful woman.

I would take photographs of my wife's friends, of family members. I would come home at seven, eat, and take pictures. At night, I would be in the dark room until two in the morning. Every day, I would use one or two rolls, without exception. One day, I entered a photo of my wife in the city photo exhibition. I won the gold medal. My first exhibition, my first prize. Since then, I have taken part in eighty exhibitions and shows of photography.

I like portraits. I like faces and hands. Hands reveal who the person is. Portraiture is one of the most difficult genres. A portrait ought to capture a person's organic integrity. The shape of the hands and the movement of the head are a complex science. I started selling my photographs to keep buying materials. I could earn up to two to three times my engineer's salary by selling them.

Then a TV station hired me as a copy editor. Quickly, I anchored a monthly show on photography which lasted a year and a half. Everyone watched. I would organize interviews with photographers from around the world: some had worked in Vietnam or Bangladesh. The show aired once a month, allowing me to continue my engineering career.

Then one day it was cancelled for no good reason. I walked away bitter. My first instinct was to go back to the press agency, Novosti. I wanted them to hire me. They told me I would have to interview with their Moscow bureau, which I did. I brought some of my best photos and a woman interviewed me. Her name was Galina Pleskova; she was the editor in chief. In her office, on a wall, I saw one of my photos: one of my portraits of women.

"So, are you the nut who photographs these gorgeous women?" She continued, "Listen, kid, photographing pretty women is not journalism. While it may take you a year to plan this portrait, journalism is about

capturing ten of those in one report not counting the planning and research involved. You're an amateur. I can't hire you."

I left, almost in tears, and returned Kiev where I went and complained to the local agency: "You know I am a good photographer." The journalist there said: "Take your pictures. If they are good, we'll send them to Moscow."

## PROFESSIONAL REPORTER, AT LAST!

That's how I abandoned my career, my wife, and my home. I left. I slept on the streets, on benches—anywhere I could lay my head. Thankfully, it was summertime. The agency agreed to let me use their lab. But I was sleeping in it behind their back. Few of my pictures were accepted. I practically starved: only a glass of milk and some bread to eat daily.

It took me five years to learn my profession. I had to learn that each photograph must be both beautiful and meaningful. No matter the subject, it had to be a work of art.

Over time, I became a war reporter. I was sent to Vietnam and Afghanistan. There were hundreds of journalists there. Someone from Russia had to be there. I don't remember much except from Vietnam. Because it was my first foreign trip, everything impressed me: the plane, tropical rains, smells, poverty, and the kids selling matches on the streets. I was lost.

In Vietnam, Cambodia, or Afghanistan, KGB agents were watching me. I did not belong to the Party; I was the only non-communist reporter working for Novosti. I could not work. I was not authorized to do what needed to be done, not allowed. I could not go to the front line. They refused me all access. I was a propaganda peon. In contrast, in Chernobyl everything was possible. I embraced my road to freedom. At the beginning, I was told what I could do but nothing was the same. Times had changed. The system showed its weaknesses and I took advantage of them. I witnessed its collapse. More than the fall of the Berlin Wall, Chernobyl symbolizes the end of the USSR. I am not alone in thinking that. People wanted change. May these photographs pay tribute to it.



Out of all the many photojournalistic reports I have produced in my lifetime, Chernobyl changed my life—it made me a different person. Today, I have difficulties living with others. I cannot understand their worries: salary, daily routine, and sentimental stories. These are meaningless compared to the tragedy I have witnessed. This catastrophe morally transformed me. It has purified me, cleansed me. After Chernobyl, I was newborn....

"We must introduce a new article to the International Criminal Law: 'All those who have hidden, hide, or have the intention to hide the truth about disasters similar to Chernobyl, like the Nuremberg trial, must be tried for crimes against humanity without any statute of limitations, prosecuting them all around the world.'"

Boris Olinyk, a poet and Ukrainian politician



I was older when my daughter was born. The Chernobyl disaster allowed my rebirth; now, she gives meaning to my life.